Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

A99.9
F764Ub

CAT/STA

United States
Department
of Agriculture

Forest Service

**Intermountain
Research Station**

Resource Bulletin
INT-80

July 1993

Forest Statistics for Land Outside National Forests in Northern Idaho, 1991

Michael J. Wilson
Dwane D. Van Hooser

CURRENT SERIAL RECORDS
ACQ./SERIALS BRANCH

AUG 10 '93

USDA
NAT'L AGRIC. LIBRARY
RECEIVED

THE AUTHORS

MICHAEL J. WILSON is a supervisory forester in the Interior West Resource Inventory, Monitoring, and Evaluation Program at the Intermountain Research Station in Ogden, UT. His main area of responsibility is in planning and coordinating the statewide forest surveys. He holds B.S. and M.S. degrees in forest management from Northern Arizona University.

DWANE D. VAN HOOSER is Program Manager of the Interior West Resource Inventory, Monitoring, and Evaluation Program at the Intermountain Research Station. He holds a B.S. degree in forestry and an M.S. degree in forestry and business management from Southern Illinois University, Carbondale. He began his Forest Service career in 1964 with the Southern Forest Experiment Station, New Orleans. Before coming to Ogden, he held a staff position at the Forest Service national headquarters in Washington, DC.

RESEARCH SUMMARY

There are about 3.5 million acres of forest land outside National Forests in northern Idaho. The primary forest types include Douglas-fir, grand fir, western redcedar, ponderosa pine, and lodgepole pine.

Approximately 73 percent of the timberland is privately owned. The remaining timberland is administered by local, state, and Federal Government agencies. The total volume of growing stock on timberland outside National Forests is 7.6 billion cubic feet with a net annual growth of 231 million cubic feet. This report contains additional information—presented in tables in the appendix—on total land area, forested land area, volume, growth, mortality, and land access.

PREFACE

The primary objective of State forest surveys—a continuing, nationwide undertaking of the Forest Service, U.S. Department of Agriculture—is to assess the renewable resources for the Nation's forest lands. Fundamental to the accomplishment of the objective are the periodic State-by-State resource inventories. Forest Survey was initially authorized by the McSweeney-McNary Act of 1928. The current authorization is through the Renewable Resources Research Act of 1978.

The Intermountain Research Station with headquarters in Ogden, UT, conducts the forest resource inventories for the Interior West States of Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, and Wyoming. These inventories provide information on the extent and condition of the forests—their wood volume and wood growth, removals, and mortality for State, privately owned, and most other forest lands outside the National Forest System. These data, when combined with similar information on National Forest lands, provide a basis for forest policies and programs guiding orderly development and use of the resources.

ACKNOWLEDGMENTS

The Intermountain Research Station gratefully acknowledges the cooperation and assistance provided by State Forester Stanley Hamilton and other personnel from the Idaho Department of Lands; the Bureaus of Land Management and Indian Affairs, U.S. Department of the Interior; and the Northern Region, Forest Service. We also gratefully acknowledge the assistance provided by Joe Hinson, Intermountain Forest Industry Association. We extend a special note of thanks to the private landowners who provided information and access to field sample locations.

Intermountain Research Station
324 25th Street
Ogden, UT 84401

CONTENTS

Page
Introduction 1
Methods 3
  Inventory Design 3
  Data Reliability 4
Highlights 4
  Area 4
  Timberland Composition and Volume 5
  Components of Change—Growth, Mortality 9
  Timberland Access 10
  Site Disturbance 10
  Size of Forested Area 12
Standard Forest Survey Terminology 12
References 18

FOREST SURVEY TABLES

1. Total area by ownership class and land class in northern Idaho, 1991 19
2. Area of forest land outside National Forests with percent standard error in northern Idaho, 1991 20
3. Net volume, net annual growth, and annual mortality of growing stock and sawtimber on timberland outside National Forests with percent standard error in northern Idaho 20
4. Total land area outside National Forests by major land class and owner group in northern Idaho, 1991 21

TIMBERLAND TABLES

Area

5. Area of timberland outside National Forests by forest type, stand-size class, and productivity class in northern Idaho, 1991 22
6. Area of other publicly owned timberland by forest type, stand-size class, and productivity class in northern Idaho, 1991 24
7. Area of forest industry owned timberland by forest type, stand-size class, and productivity class in northern Idaho, 1991 26
8. Area of nonindustrial private timberland by forest type, stand-size class, and productivity class in northern Idaho, 1991 28
9. Area of timberland outside National Forests by stand volume (International $^1/_4$-inch rule) and owner group in northern Idaho, 1991 30
10. Area of timberland outside National Forests by forest type and stocking condition in northern Idaho, 1991 30

Number of Trees

Page
11. Number of growing-stock trees on timberland outside National Forests by species and diameter class in northern Idaho, 1991 31
12. Number of cull and salvable dead trees on timberland outside National Forests by owner group, for softwoods and hardwoods in northern Idaho, 1991 32

Volume

13. Net volume of growing stock on timberland outside National Forests by forest type and stand-size class in northern Idaho, 1991 32
14. Net volume of sawtimber (International $^1/_4$-inch rule) on timberland outside National Forests by forest type and stand-size class in northern Idaho, 1991 33
15. Net volume of sawtimber (Scribner rule) on timberland outside National Forests by forest type and stand-size class in northern Idaho, 1991 33
16. Net volume of growing stock on timberland outside National Forests by species and owner group in northern Idaho, 1991 34
17. Net volume of sawtimber (International $^1/_4$-inch rule) on timberland outside National Forests by species and owner group in northern Idaho, 1991 34
18. Net volume of sawtimber (Scribner rule) on timberland outside National Forests by species and owner group in northern Idaho, 1991 35
19. Net volume of growing stock on timberland outside National Forests by species and diameter class in northern Idaho, 1991 36
20. Net volume of sawtimber (International $^1/_4$-inch rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1991 37
21. Net volume of sawtimber (Scribner rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1991 38
22. Net volume of timber on timberland outside National Forests by class of timber for softwoods and hardwoods in northern Idaho, 1991 38
23. Net volume of growing stock on timberland outside National Forests by forest type and species in northern Idaho, 1991 39
24. Net volume of sawtimber (International $^1/_4$-inch rule) on timberland outside National Forests by forest type and species in northern Idaho, 1991 40
25. Net volume of sawtimber (Scribner rule) on timberland outside National Forests by forest type and species in northern Idaho, 1991 41

Page

Growth

26. Net annual growth of growing stock on timberland outside National Forests by species and owner group in northern Idaho, 1990 42
27. Net annual growth of sawtimber (International $^1/_4$-inch rule) on timberland outside National Forests by species and owner group in northern Idaho, 1990 42
28. Net annual growth of sawtimber (Scribner rule) on timberland outside National Forests by species and owner group in northern Idaho, 1990 43
29. Net annual growth of growing stock on timberland outside National Forests by species and diameter class in northern Idaho, 1990 44
30. Net annual growth of sawtimber (International $^1/_4$-inch rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1990 45
31. Net annual growth of sawtimber (Scribner rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1990 46

Mortality

32. Annual mortality of growing stock on timberland outside National Forests by species and owner group in northern Idaho, 1990 47
33. Annual mortality of sawtimber (International $^1/_4$-inch rule) on timberland outside National Forests by species and owner group in northern Idaho, 1990 47
34. Annual mortality of sawtimber (Scribner rule) on timberland outside National Forests by species and owner group in northern Idaho, 1990 48
35. Annual mortality of growing stock on timberland outside National Forests by species and diameter class in northern Idaho, 1990 49
36. Annual mortality of sawtimber (International $^1/_4$-inch rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1990 50
37. Annual mortality of sawtimber (Scribner rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1990 51
38. Annual mortality of growing stock on timberland outside National Forests by species and cause of death in northern Idaho, 1990 52

Page

39. Annual mortality of sawtimber (International $^1/_4$-inch rule) on timberland outside National Forests by species and cause of death in northern Idaho, 1990 52
40. Annual mortality of sawtimber (Scribner rule) on timberland outside National Forests by species and cause of death in northern Idaho, 1990 53

COUNTY TABLES

41. Area of timberland outside National Forests by county in northern Idaho, 1991 53
42. Net volume of growing stock and sawtimber on timberland outside National Forests by county in northern Idaho, 1991 54
43. Net annual growth of growing stock and sawtimber on timberland outside National Forests by county in northern Idaho, 1990 54
44. Annual mortality of growing stock and sawtimber on timberland outside National Forests by county in northern Idaho, 1990 55

MISCELLANEOUS TABLES

45. Area of timberland outside National Forests by burn history and owner group in northern Idaho, 1991 55
46. Area of timberland outside National Forests by cutting history and owner group in northern Idaho, 1991 55
47. Area of timberland outside National Forests by distance to road and owner group in northern Idaho, 1991 56
48. Net volume of growing stock on timberland outside National Forests by distance to road and owner group in northern Idaho, 1991 56

MARKETING ZONE TABLES

49. Area of timberland outside National Forests by marketing zone and owner group in northern Idaho, 1991 56
50. Net volume of growing stock and sawtimber on timberland outside National Forests by marketing zone and owner group in northern Idaho, 1991 57
51. Net annual growth of growing stock and sawtimber on timberland outside National Forests by marketing zone and owner group in northern Idaho, 1990 57
52. Annual mortality of growing stock and sawtimber on timberland outside National Forests by marketing zone and owner group in northern Idaho, 1990 58

Forest Statistics for Land Outside National Forests in Northern Idaho, 1991

Michael J. Wilson
Dwane D. Van Hooser

INTRODUCTION

In 1990 the Interior West Resource Inventory, Monitoring, and Evaluation Program of the Intermountain Research Station completed a comprehensive forest survey of lands in northern Idaho, excluding National Forests. This report presents the principal findings of this inventory for the northern unit as a whole (fig. 1), for individual counties, and for two major marketing zones, Northern and Panhandle (fig. 2).

Resource statistics are reported for lands in private and public ownership. The private lands include Indian Trust lands under the jurisdiction of the Bureau of Indian Affairs, U.S. Department of the Interior; forest

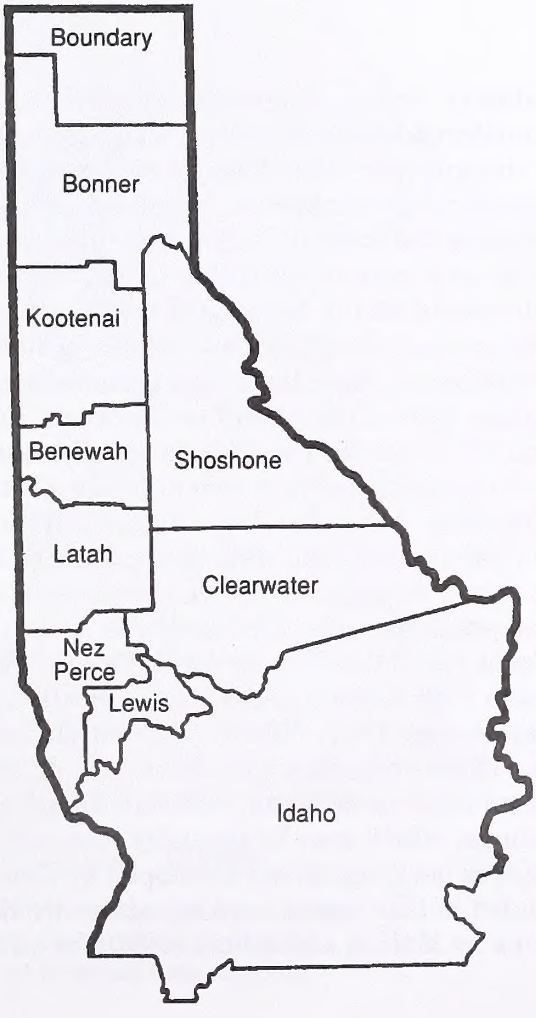

Figure 1—Northern Idaho survey unit, 1991.

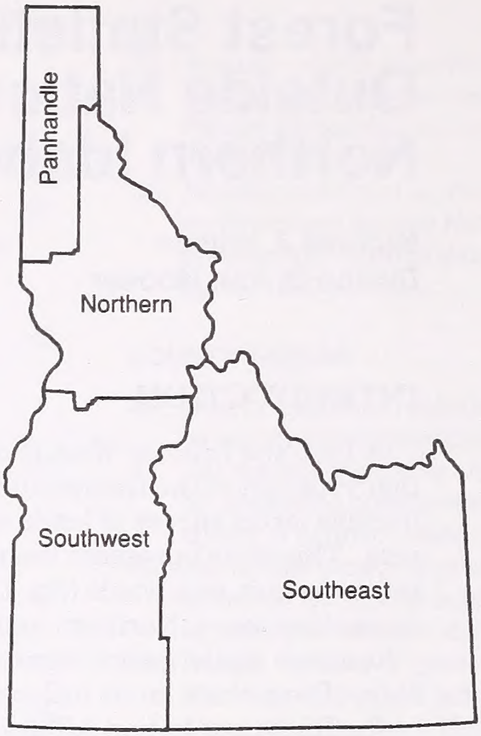

Figure 2—Marketing zones in Idaho (source: Van Hooser and Green 1985).

industry; and nonindustrial private owners. Public lands include those administered by the Bureau of Land Management (BLM), U.S. Department of the Interior; other Federal agencies; the State of Idaho; and county and municipal governments. Reserved areas, such as the State parks administered by the State of Idaho, were not field sampled, but are included in the total area summaries (table 1). A total area estimate for those lands administered by the National Forest System (NFS), Forest Service, U.S. Department of Agriculture, is also included in table 1; however, resource statistics for these lands and reserved lands are not presented. The information in this report will be combined with similar data for southern Idaho and NFS data for the 16 National Forests in the State to form the basis for a comprehensive statewide analysis of Idaho's forest resource situation.

Because this is the first compilation for all forest lands outside National Forests in northern Idaho using current Forest Survey sample plot design and field procedures, direct comparisons between the results reported here and previous reports for northern Idaho (Hutchison and Winters 1942; Pissot 1953; Van Hooser 1984; Van Hooser and Green 1985) should be made with caution. Also, earlier State reports (Benson, Green, and Van Hooser 1987; Wilson 1962) either used other data sources for BLM and State endowment lands or used different procedures, definitions, or standards. In addition, different algorithms were used to calculate wood volume, which may be partially responsible for differences in volume. Past reports used equations developed by Kemp (1958), while estimates included in this report used equations by Kemp for some species and equations by Moisen and others (1990) for other species.

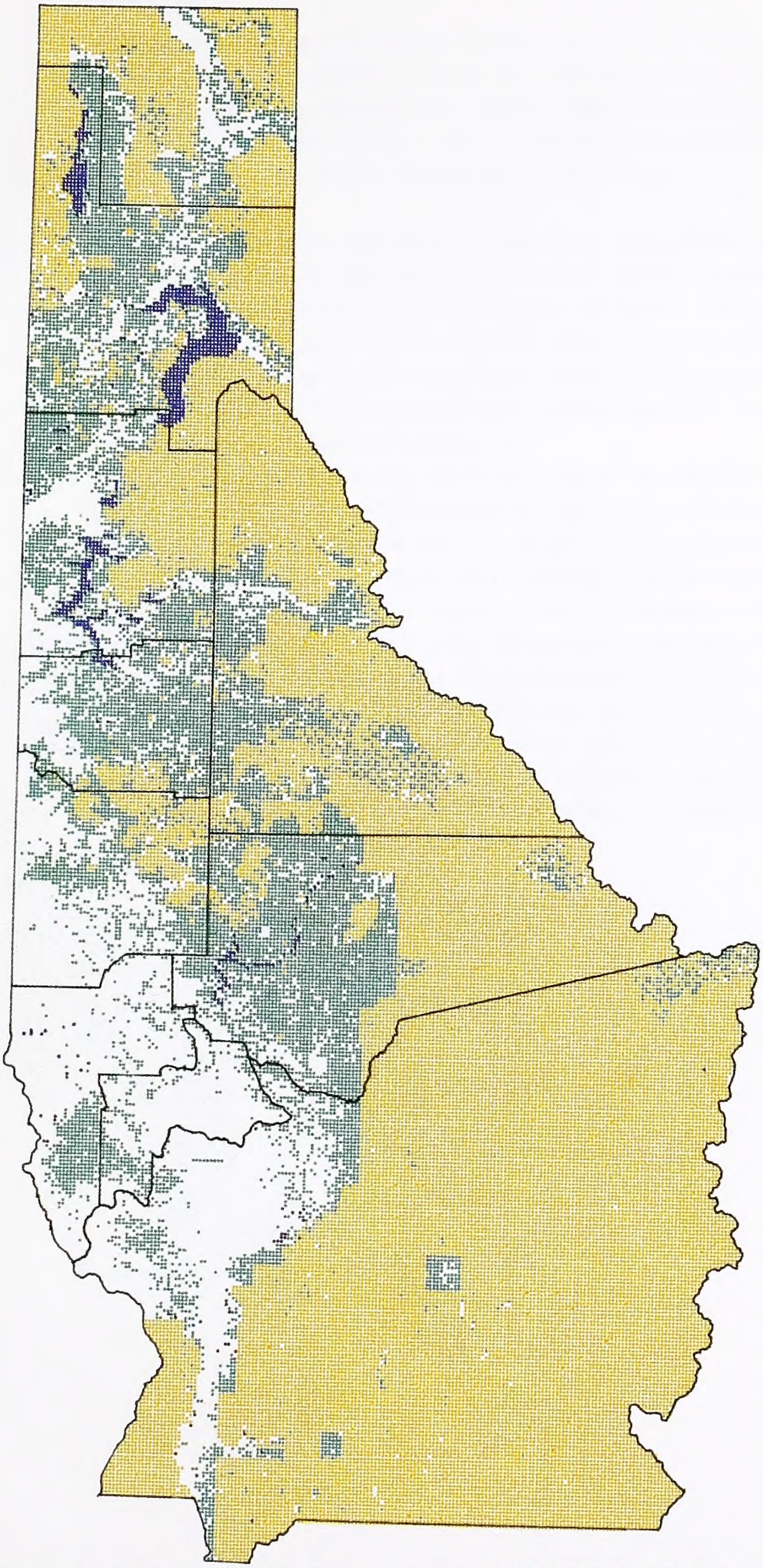

Figure 3—Distribution of Phase I points by cover class in northern Idaho, 1991. Cover classes (timberland, woodland, water) are not shown on National Forest lands.

METHODS

The inventory was designed to provide reliable statistics primarily at the State level or the sample area level. The 10 counties in northern Idaho—Benewah, Bonner, Boundary, Clearwater, Idaho, Kootenai, Latah, Lewis, Nez Perce, and Shoshone—were grouped into one sample area and described as the northern Idaho study unit (fig. 1).

Inventory Design

The Interior West Resource Inventory, Monitoring, and Evaluation Program uses a two-phase sampling design when conducting statewide forest surveys. Phase I of the survey began in 1989. Ownership and area estimates were initially determined by classifying 55,189 map grid points based on the most recent available land status maps and aerial photographs (fig. 3). The sample points were stratified into owner groups and land classes for field sampling.

Phase II, the field work, was conducted during the summer of 1990. Land was classified and trees were characterized at 949 field locations, of which 545 were forested (fig. 4). Each field measurement plot consists of a primary location point and four supplemental measurement points totaling about 1 acre. At each point, trees 5.0 inches in diameter at breast height (d.b.h.) and larger were selected for measurement on a 40 basal area factor variable-radius plot. Trees between 1.0 inch and 4.9 inches d.b.h. were measured on a $\frac{1}{300}$-acre fixed plot centered at each point. If no live trees larger than 1.0 inch d.b.h. were tallied, then individual seedlings were measured. In addition, several plot-level measurements relating to wildlife, range, recreation, and other resources were collected at each field location.

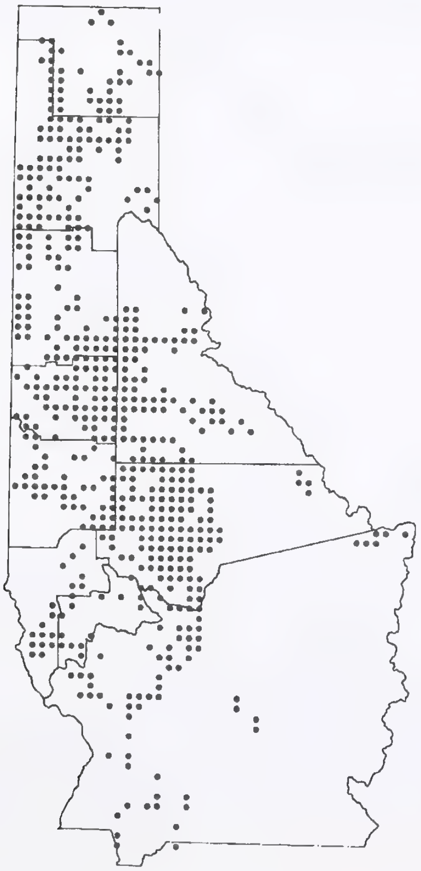

Figure 4— Distribution of Phase II field locations outside National Forests in northern Idaho, 1990.

Data Reliability

The sampling methods were designed to achieve suitable sampling errors for estimates of area and volume at the State level. Sampling error increases as the area or volume considered decreases. The sampling errors presented in tables 2 and 3, equal to one standard deviation for the sample data, may be used to compute confidence intervals for population estimates. For example, following the method defined by Cochran (1963), the confidence interval for total growing-stock volume (in million cubic feet, at the 95 percent confidence level) is:

$$7{,}591 \pm 1.96(0.04 \times 7{,}591) = 7{,}591 \pm 595$$

where 1.96 is the number of standard deviations. This confidence interval indicates a 0.95 probability that the range 8,186 to 6,996 million cubic feet will cover the true growing-stock inventory volume.

The results are reported for individual items and individual counties so users may combine them as desired. It is not recommended that individual item or county data be used in isolation. The user should aggregate data cells as much as possible. Sampling error for a combination of data items or counties may be estimated using the following formula:

$$SE_g = \frac{SE_t\sqrt{X_t}}{\sqrt{X_g}}$$

where

SE = standard error of the estimate (expressed as a percent)
X = variable of interest (area or volume)
g = group of counties to be combined
t = total for the State.

For example, the estimate of sampling error for growing-stock volume in the Panhandle Counties is 5.2 percent. The 95 percent confidence interval for growing-stock volume is 4,412 ± 450 million cubic feet.

HIGHLIGHTS

Area

The northern Idaho study unit encompasses 13.7 million acres (table 1). About one-third of this area is privately owned, comprising more than 4.5 million acres (fig. 5). Of the public agencies in northern Idaho, the Forest Service is the largest, managing over half of the State's total land area.

There are 3,481,216 acres (table 1) of forest land outside the National Forests. Forest land, as defined by Forest Survey, is land that meets minimum stocking requirements; nonstocked areas that were harvested recently or otherwise disturbed are also included as forest land. Nearly 75 percent of the forest land outside the National Forests is privately owned, with over 30 percent owned by the forest industry (fig. 6). The State of Idaho is the largest administrator of public forest land besides the Forest Service, administering 21 percent of the forest land outside the National Forests. Only 23,666 acres of forest land are reserved from tree utilization, nearly all of which are in the Selkirk Crest and Upper Priest Lake Scenic Areas and the Idaho State Parks.

The information presented in the balance of this report, as well as in the tables, is based on the remaining 3.5 million acres of nonreserved timberland outside the National Forests.

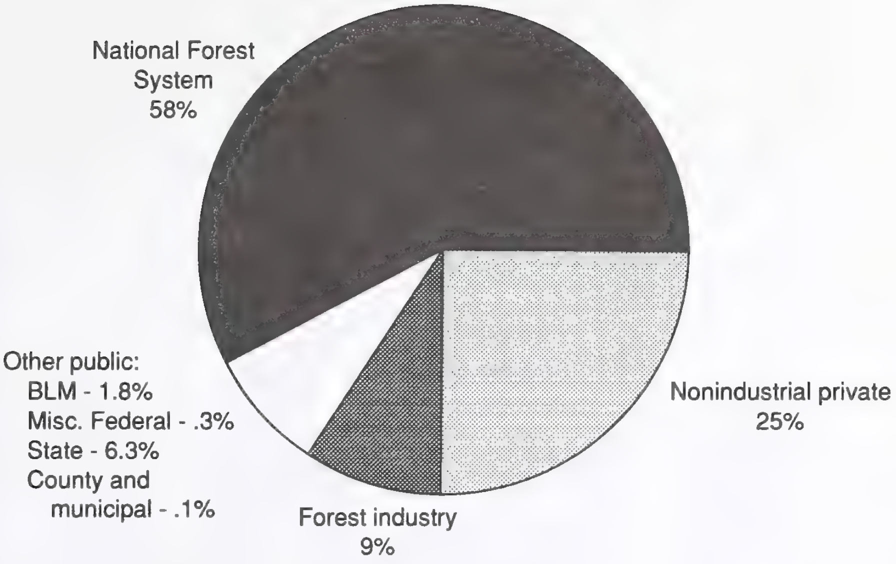

Figure 5—Distribution of land area by ownership class in northern Idaho, 1991.

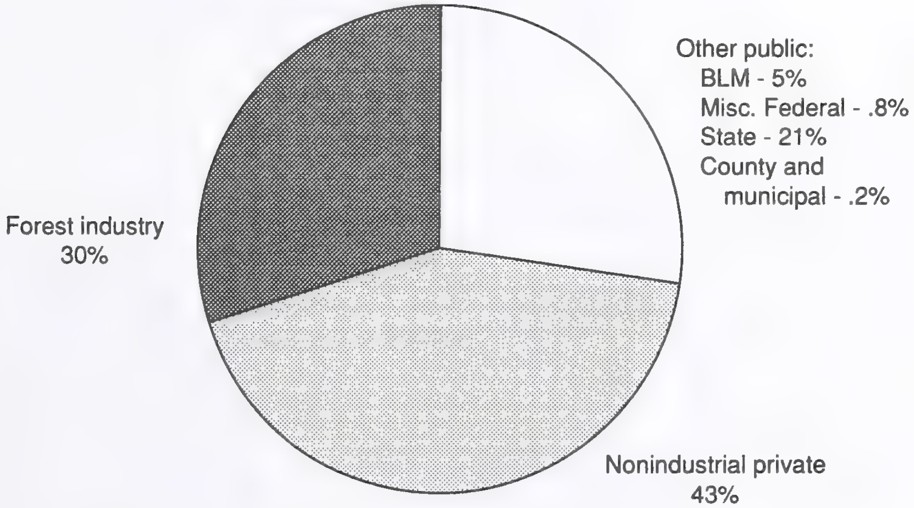

Figure 6—Distribution of timberland outside National Forests by owner group in northern Idaho, 1991.

Timberland Composition and Volume

The primary forest types in northern Idaho are Douglas-fir, grand fir, western redcedar, and ponderosa pine. Douglas-fir and grand fir types cover about 2 million acres, or about 57 percent of the total timberland (fig. 7). Lodgepole pine, western hemlock, and spruce-fir forest types are also prominent.

Just over 10 percent of the timberland area is considered mature (stands older than 100 years). Only 5 percent is over 120 years old (fig. 8). About 50 percent of the timberland is categorized as fully stocked or medium to fully stocked, while 28 percent is considered poorly stocked or nonstocked (fig. 9). Stocking represents the portion of the growing space utilized by the growing-stock trees; timberland that is not fully stocked is below its potential for wood fiber production.

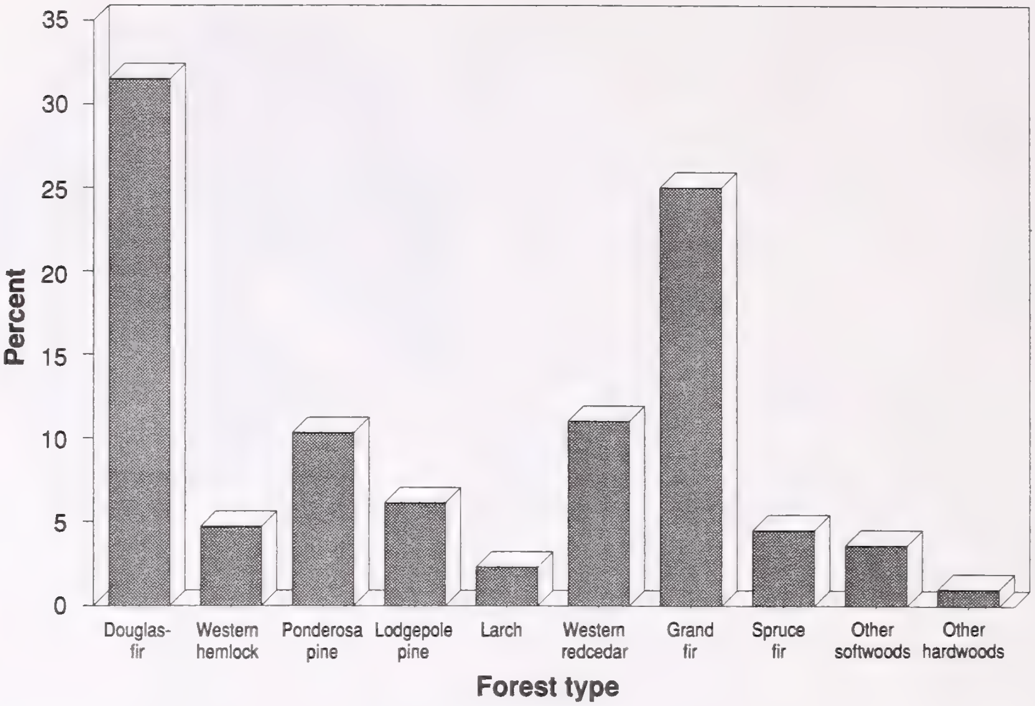

Figure 7—Distribution of timberland outside National Forests by forest type in northern Idaho, 1991.

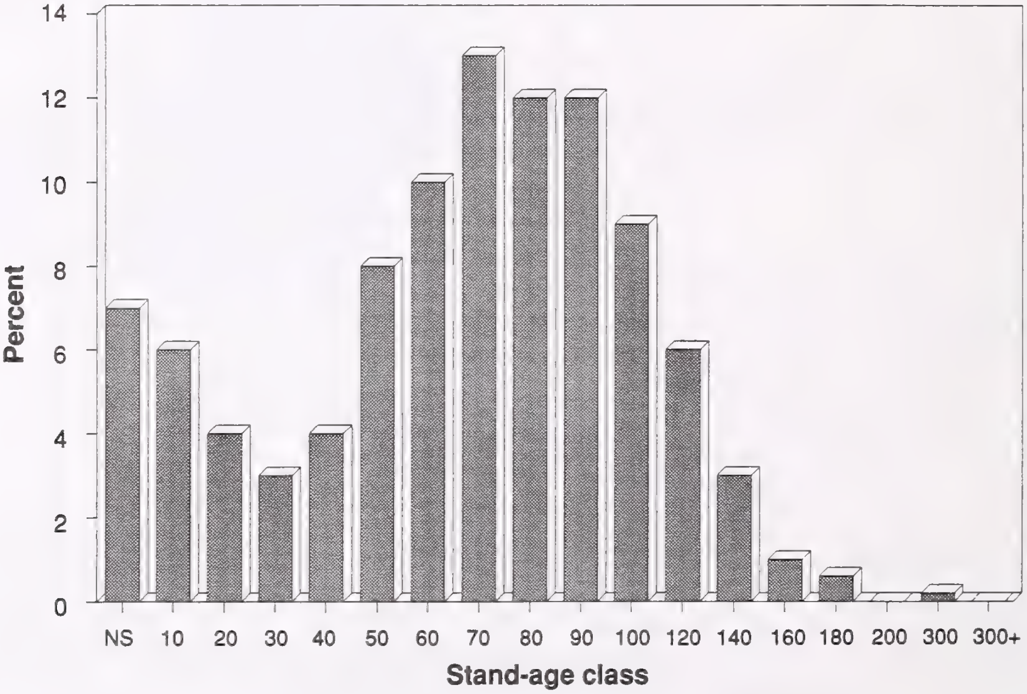

Figure 8—Distribution of timberland outside National Forests by stand-age class in northern Idaho, 1991. NS stands for nonstocked.

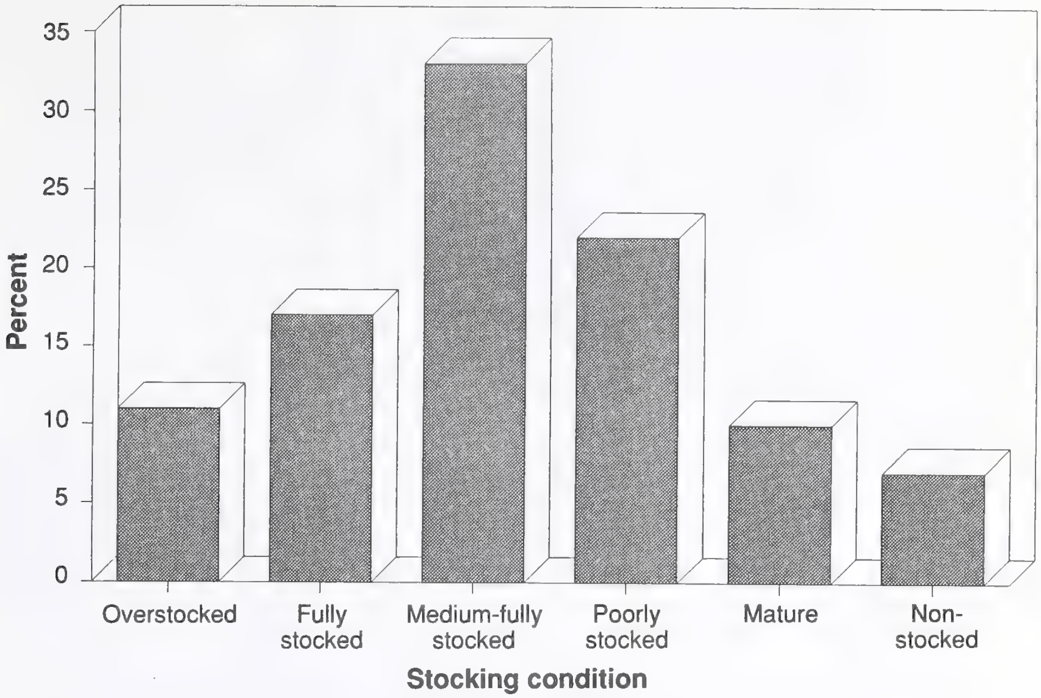

Figure 9—Distribution of timberland outside National Forests by stocking condition in northern Idaho, 1991.

Northern Idaho's forests are among the most productive in the United States. Over one-third of the forested areas outside the National Forests have the potential to produce more than 120 cubic feet of wood per acre each year. Fully 259,100 acres could produce between 165 and 225 cubic feet annually. Over 7,100 acres—more than 11 square miles—has the potential to produce more than 225 cubic feet per acre each year. Three-quarters of the timberland is capable of producing at least 85 cubic feet per acre annually, while only 2 percent produces less than 50.

More than one-third of the timberland contains 10,000 or more board feet per acre, while just 22 percent contains less than 1,500 board feet per acre. Public lands have a larger percentage of their acreage in the high volume classes than do private lands.

Nearly two-thirds of the timberland area outside the National Forests is classified as sawtimber stands; over one-fourth is classified as either seedling/sapling or nonstocked stands (fig. 10). Sawtimber stands average 13,000 board feet per acre and contain over 92 percent of the board-foot volume and 87 percent of the total growing-stock volume.

Northern Idaho timberlands outside the National Forests have more than 1.4 billion growing-stock trees, nearly one-third of which are grand fir (*Abies grandis*). Over 66 percent of the growing-stock trees are saplings, while only 14 percent are over 9 inches d.b.h. (fig. 11). In addition to growing-stock trees, there are 11.5 million live cull trees and 29.6 million salvable dead trees. Douglas-fir (*Pseudotsuga menziesii*) trees have the widest range, found on 63 percent of the timbered acres. Douglas-fir represents 33 percent of the total growing-stock volume.

Timberland outside the National Forests in northern Idaho contains 7.6 billion cubic feet of growing-stock volume, including 30.9 billion board feet of sawtimber (International ¼-inch rule), an average of 2,195 cubic feet,

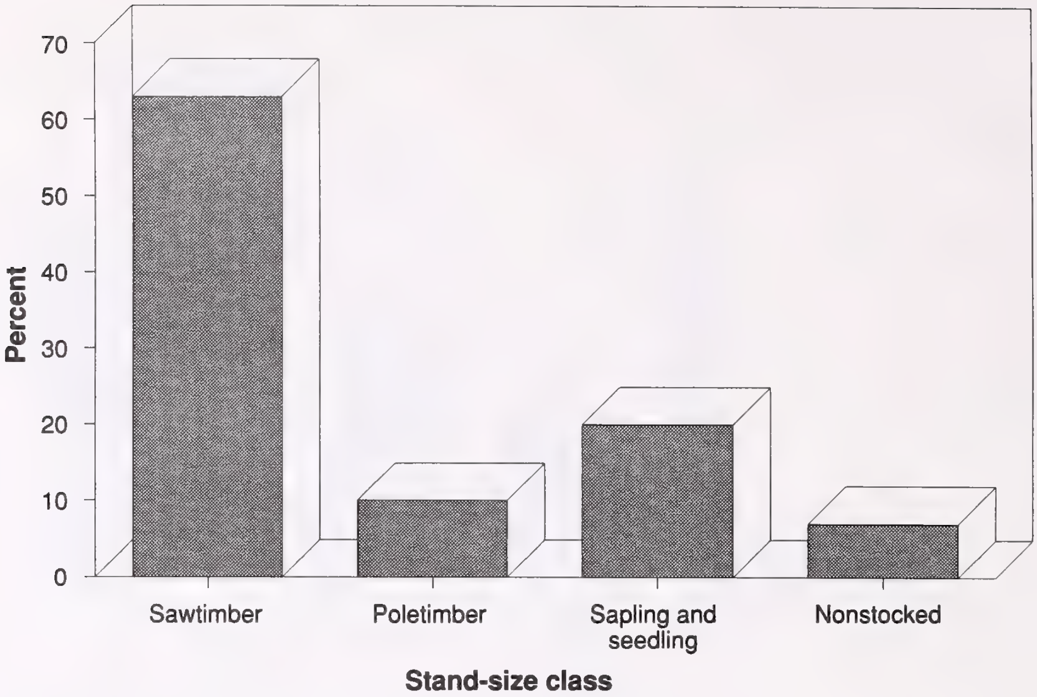

Figure 10—Distribution of timberland outside National Forests by stand-size class in northern Idaho, 1991.

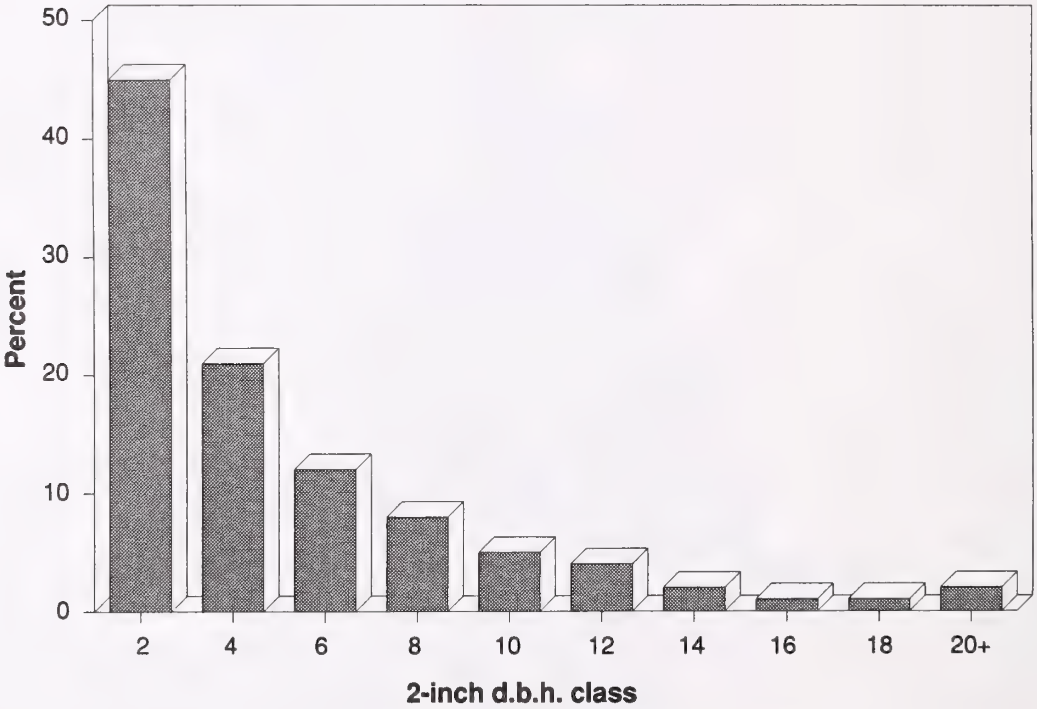

Figure 11—Distribution of growing-stock trees on timberland outside National Forests by diameter class in northern Idaho, 1991.

29 cords, or about 8,900 board feet per acre. Sound cull and salvable dead trees contribute an additional 118 cubic feet per acre of usable wood. Thirty-seven percent of the growing-stock volume is on nonindustrial private land, while another 30 percent is on forest industry land (fig. 12). Douglas-fir and grand fir forest types contain 29 percent and 22 percent, respectively, of the total growing-stock volume in northern Idaho. Trees between 9 and 17 inches d.b.h. contain half of the total volume, while 12 percent of the volume is in trees 23 inches d.b.h. and larger (fig. 13).

Components of Change—Growth, Mortality

Gross annual growth of growing stock on northern Idaho timberland outside the National Forests was 278 million cubic feet of wood in 1990 or about 80 cubic feet per acre. Twenty-eight percent of the annual growth came from the 10- and 12-inch d.b.h. classes. More than one-half of the total annual growth was from Douglas-fir and grand fir trees.

Mortality reduced gross annual growth by 47.6 million cubic feet in 1990. Disease accounted for 52 percent and insects accounted for 22 percent of the mortality. Disease reduced growth in grand fir by over 8.0 million cubic feet, while insects reduced lodgepole pine (*Pinus contorta*) and ponderosa pine (*Pinus ponderosa*) growth by over 5.7 million cubic feet.

Net annual growth (gross growth less mortality) totaled 230.7 million cubic feet, or 3 percent of the inventory volume.

Western white pine (*Pinus monticola*) had a net loss of 815,000 cubic feet in 1990 due primarily to insects and disease, especially the white pine blister rust (*Cronartium ribicola*).

Using the productivity class midpoint values and their associated acreages, the estimated potential net annual growth for fully stocked timberland in northern Idaho is 384.6 million cubic feet, or an average of 111.2

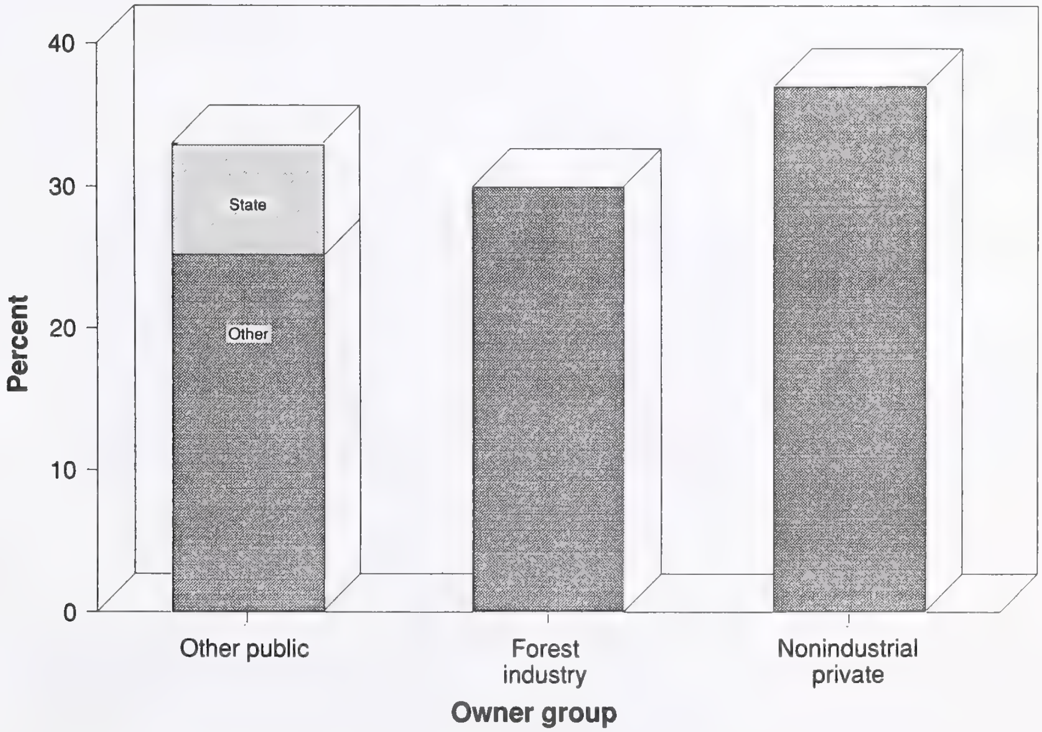

Figure 12—Distribution of growing-stock volume on timberland outside National Forests by owner group in northern Idaho, 1991.

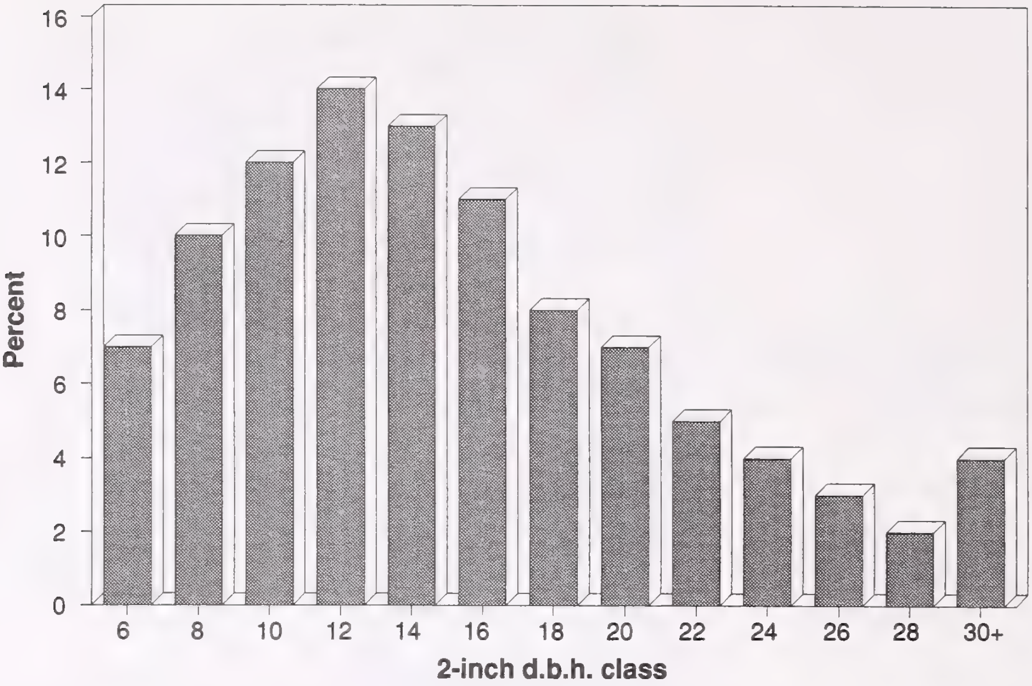

Figure 13—Distribution of growing-stock volume on timberland outside National Forests by diameter class in northern Idaho, 1991.

cubic feet per acre. During the early 1990's, stands appear to be producing 60 percent of the potential net annual growth.

Timberland Access

Over 90 percent of the timberland outside the National Forests is within 3 miles of improved or well-maintained roads. Private lands are slightly more accessible, with only 4 percent of their area farther than 3 miles from a road, compared to 14 percent of the public lands. On average, growing-stock volume is 2,195 cubic feet per acre; however, the volume ranges from 2,048 cubic feet per acre on lands within ½ mile of a maintained road to 3,085 cubic feet per acre on lands more than 5 miles from a road.

Fifty-three percent of the timberland outside the National Forests is on gradual slopes 30 percent and less, while only 9 percent is on slopes 60 percent and greater (fig. 14). In addition, about half of the wood volume is on gradual slopes, although 43 percent of the volume in the mountain hemlock type is on slopes greater than 90 percent.

Site Disturbance

About 2 million acres have visible evidence of fires, either wildfire or prescribed burning, nearly one-fifth of which burned within the past 10 years. Most of the evidence of fires was in the Douglas-fir, grand fir, western redcedar, and ponderosa pine forest types.

Some type of harvesting was evident on 2.6 million acres, or three-fourths of the timberland (fig. 15). Over 1 million acres had some harvest within the past 10 years, while over a third of a million acres had some harvest within the past 3 years. Most of the harvesting was on nonindustrial private lands; 36 percent of these lands had some cutting within the past 10 years.

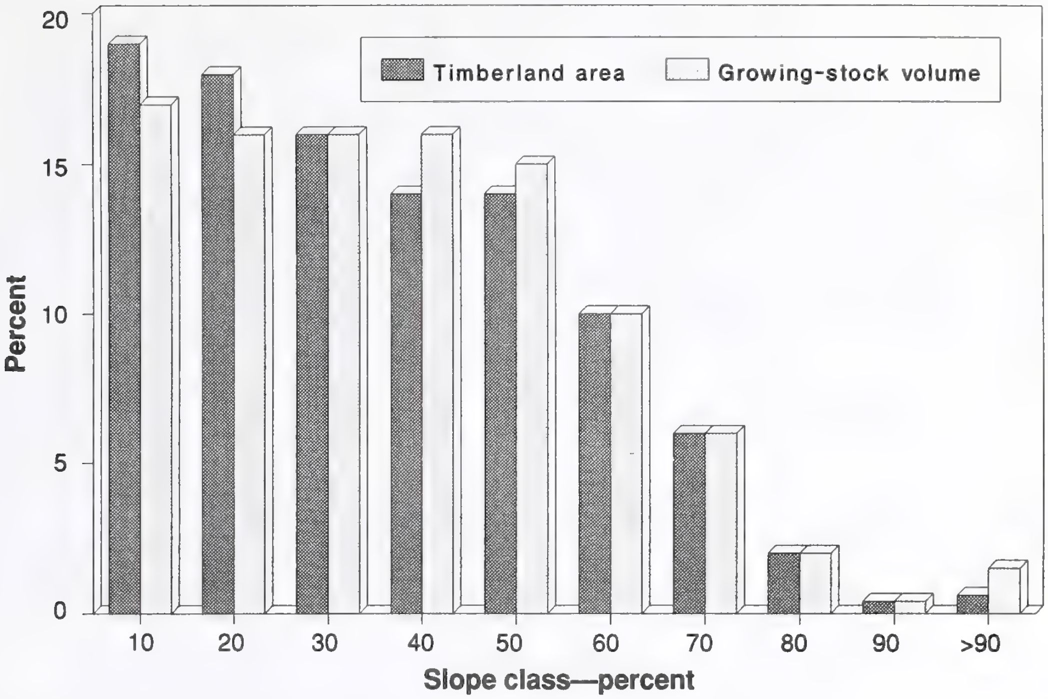

Figure 14—Distribution of timberland area and growing-stock volume on timberland outside National Forests by slope class in northern Idaho, 1991.

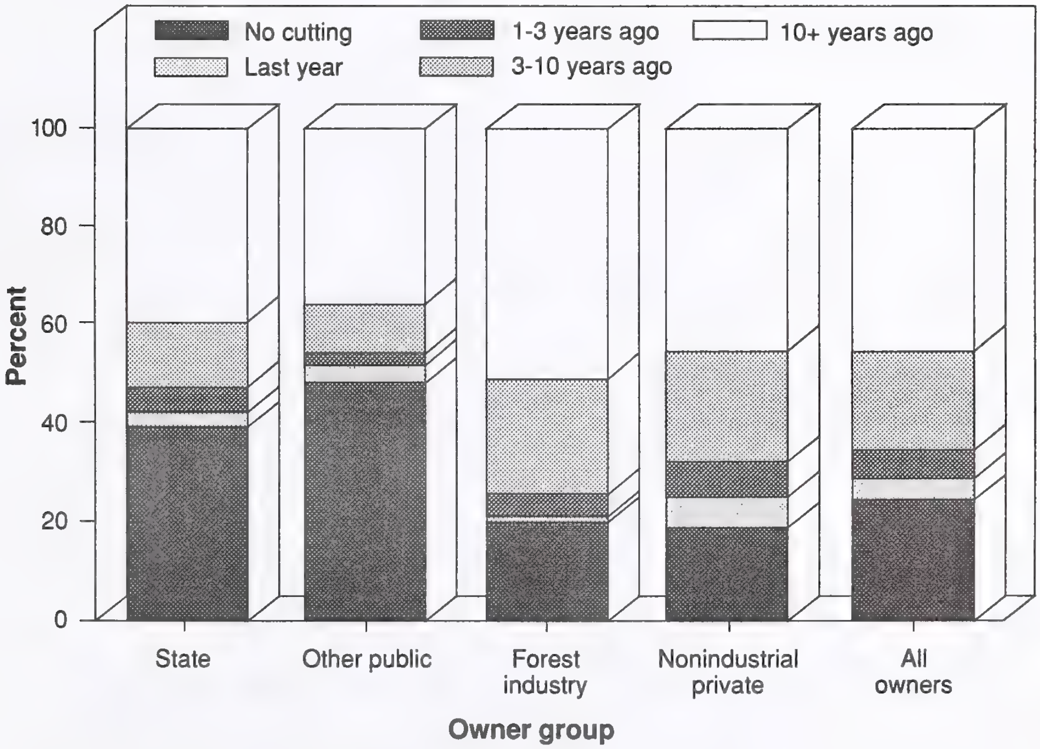

Figure 15—Distribution of timberland area outside National Forests by cutting history in northern Idaho, 1991.

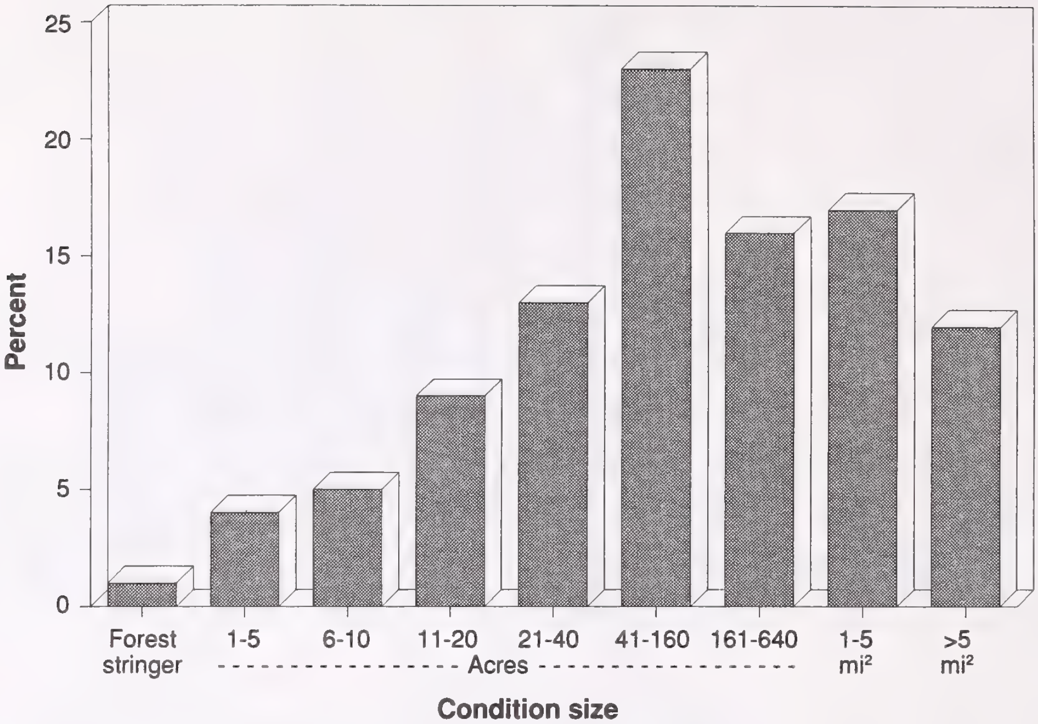

Figure 16—Distribution of timberland area outside National Forests by size of condition sampled in northern Idaho, 1991.

Size of Forested Area

While some forested areas in northern Idaho occur in small patches, the preponderance is in large contiguous blocks. Fully 86 percent of the forests are in blocks exceeding 5 square miles; less than 2 percent are in patches of 40 acres or less. The size of the forest condition sampled varied more than the size of the total forested area itself (fig. 16). Stands of homogeneous condition from 41 to 160 acres accounted for 23 percent of the area, while 31 percent was comprised of stands 40 acres or less. Large homogeneous areas did occur; those exceeding more than 1 square mile accounted for 29 percent of the forested area. The final classification—forested stringers—occurred on only 1 percent of the forest.

STANDARD FOREST SURVEY TERMINOLOGY

Basal area—The cross-sectional area of a tree expressed in square feet. For timber species the calculation is based on diameter at breast height (d.b.h.); for woodland species it is based on diameter at root collar (d.r.c.).

Christmas tree grade—Pinyon species are classified as Christmas trees using the following guidelines:

Premium—Excellent conical form with no gaps in branches and a straight bole.
Standard—Good conical form with small gaps in branches and bole slightly malformed.
Utility—Conical in form with branches missing and bole bent or malformed.
Cull—Not meeting one of the above classifications or over 12 feet in height.

Cord—A stack of wood equivalent to 128 cubic feet of wood and air space having standard dimensions of 4 by 4 by 8 feet. An average conversion factor of 75 cubic feet of wood volume is used.

Crown cover—Percentage of the ground surface covered by a vertical projection of tree crowns. Synonymous with canopy cover.

Cull trees—Live timber species trees that are unmerchantable now or prospectively (see Rough trees and Rotten trees).

Cull volume—Portions of the volume in a timber species tree that are not usable for wood products because of rot, missing material, dead material, or other cubic-foot defect.

Diameter at breast height (d.b.h.)—Diameter of the stem measured 4.5 feet above the ground.

Diameter at root collar (d.r.c.)—Diameter equivalent for a woodland species, taken at the point nearest the ground line that represents the basal area of the tree stem or stems.

Diameter classes—Tree diameters, either d.b.h. or d.r.c., grouped into 2-inch classes, with the even inch the midpoint for the class.

Diameter outside bark (d.o.b.)—Tree diameter measurement taken over the bark.

Distance to road—The distance from a sample site to the nearest improved road that could be accessed from the site. Improved roads are permanent, maintained roads.

Farmer/rancher-owned lands—Lands owned by a person who operates a farm or a ranch and who either does or directly supervises the work.

Fenceposts—Juniper and oak species are evaluated for post potential using the following criteria:

Line post—A 7-foot minimum length with 5- to 7-inch diameter butt, 2.5-inch minimum small-end diameter, and reasonably straight and solid.

Corner post—An 8-foot minimum length with 7- to 9-inch diameter butt, 2.5-inch minimum small-end diameter, and reasonably straight and solid.

Forest industry lands—Lands owned by companies or individuals operating a primary wood-processing plant, either within the State's boundaries or in nearby States or Provinces.

Forest lands—Lands at least 10 percent stocked by forest trees of any size, including lands that formerly had such tree cover and that will be regenerated naturally or artificially. The minimum area for classification of forest land is 1 acre. Roadside, streamside, and shelterbelt strips of trees must have a crown width of at least 120 feet to qualify as forest land. Unimproved roads and trails, streams, and clearings in forest areas are classified as forest if they are less than 120 feet wide.

Forest trees—Woody plants having a well-developed stem or stems, usually more than 12 feet tall at maturity, with a generally well-defined crown.

Forest type—A classification of forest land based upon and named for the tree species presently forming a plurality of live-tree stocking.

Gross annual growth—The average annual increase in the net volume of trees.

Gross volume in board feet—The board-foot volume in the sawlog portion of a sawtimber tree. Volume is computed from a 1-foot stump to a minimum sawlog top of 7 inches d.o.b. for softwoods, or 9 inches d.o.b. for hardwoods; or to the point where the central stem breaks into limbs.

Growing-stock trees—Live timber species trees meeting specified standards of quality and vigor; excludes cull trees.

Growing-stock volume—Net cubic-foot volume in live poletimber-size and sawtimber-size growing-stock trees from a 1-foot stump to a minimum 4-inch top (of central stem) outside bark or to the point where the central stem breaks into limbs.

Growth—See Net annual growth.

Hardwood trees—Trees that are usually broad leaved and deciduous.

Indian Trust—Indian lands held in trust by the Federal Government for a Native American tribe or individual.

Industrial wood—All commercial roundwood products except fuelwood.

Land area—The area of dry land and land temporarily or partially covered by water, such as marshes, swamps, and river flood plains, streams, sloughs, estuaries, and canals less than 120 feet wide; and lakes, reservoirs, and ponds less than 1 acre.

Logging residue—The unused portions within the merchantable sections of growing-stock trees cut or killed during logging.

Mill or plant residue—Wood material from mills or other primary manufacturing plants that is not utilized for the mill's or plant's primary product. Mill or plant residue includes bark, slabs, edgings, trimmings, miscuts, sawdust, and shavings. Much of the mill and plant residue is used as fuel and as the raw material for such products as pulp, pelletized fuel, fiberwood, mulch, and animal bedding. Mill or plant residue includes bark and the following components:

Coarse residue—Wood material suitable for chipping, such as slabs, edgings, and trim.

Fine residue—Wood material unsuitable for chipping, such as sawdust, shavings, and veneer clippings.

Miscellaneous Federal lands—Lands administered by Federal agencies other than the Forest Service, U.S. Department of Agriculture, or the Bureau of Land Management, U.S. Department of the Interior.

Mortality—The net volume of growing-stock trees that have died from natural causes during a specified period.

National Forest lands—Public lands administered by the Forest Service, U.S. Department of Agriculture.

Net annual growth—Gross annual growth minus average annual mortality.

Net dead volume—For woodland species, net volume of dead trees plus net volume of dead material in live trees.

Net volume in board feet—The gross board-foot volume in the sawlog portion of growing-stock trees, less deductions for cull volume.

Net volume in cubic feet—For timber species, gross cubic-foot volume in the merchantable portion of trees, less deductions for cull volume. Volume is computed for the merchantable stem from a 1-foot stump to a minimum 4-inch top d.o.b., or to the point where the central stem breaks into limbs. For woodland species, gross cubic-foot volume less deductions for dead, missing, and rotten material. Volume is calculated for trees 3.0 inches and larger d.r.c. to a stem or branch top 1.5 inches d.o.b.

Nonforest lands—Lands that do not currently qualify as forest land.

Nonindustrial private—All private ownerships except forest industry.

Nonstocked areas—Forest land less than 10 percent stocked with live trees.

Other private lands—Privately owned lands other than forest industry or Indian Trust.

Other public lands—Public lands administered by agencies other than the Forest Service, U.S. Department of Agriculture. Includes lands administered by other Federal, State, county, and local government agencies, including lands leased by these agencies for more than 50 years.

Other removals—The net volume of growing-stock trees removed from the inventory by cultural operations, such as timber-stand improvement, by land clearing, and by changes in land use, such as a shift to wilderness.

Poletimber stands—Stands at least 10 percent stocked with growing-stock trees, in which half or more of the stocking is sawtimber or poletimber trees or both, with poletimber stocking exceeding that of sawtimber (see Stocking).

Poletimber trees—Live timber species trees at least 5 inches d.b.h., but smaller than sawtimber.

Potential growth—The average net annual cubic-foot growth per acre at culmination of mean annual growth attainable in fully stocked natural stands.

Primary wood-processing plants—Plants using roundwood products, such as sawlogs, pulpwood bolts, and veneer logs.

Productivity—Potential yield capability of a stand (in cubic feet per acre per year) calculated here as a function of site index.

Productivity class—A classification of forest land that reflects biological potential. For timberlands, the index used is the potential net annual growth at culmination of mean annual increment in fully stocked natural stands. Woodland is classified as “high site” where sustained wood production is likely, or as “low site” where the continuous production of wood is unlikely.

Removals—The net volume of growing-stock trees removed from the inventory by harvesting, cultural operations, land clearing, and changes in land use.

Reserved forest land—Forest land withdrawn from tree utilization through statute or administrative designation.

Residue—See Mill or plant residue.

Rotten trees—Live poletimber or sawtimber trees with more than 67 percent of the total cubic-foot volume cull and with more than half of the cull volume attributable to rotten or missing material.

Rough trees—Live poletimber or sawtimber trees with more than 67 percent of the total cubic-foot volume cull and with less than half of the cull volume attributable to rotten or missing material.

Roundwood—Logs, bolts, or other round sections cut from trees.

Salvable dead trees—Standing dead timber species trees that meet growing-stock standards.

Saplings—Live timber species trees 1 to 4.9 inches d.b.h. or woodland tree species 1 to 2.9 inches d.r.c.

Sapling and seedling stands—Timberland stands at least 10 percent stocked on which more than half of the stocking is saplings or seedlings, or both.

Sawlog portion—That part of the bole of sawtimber trees between a 1-foot stump and the sawlog top.

Sawlog top—The point on the bole of sawtimber trees above which a sawlog cannot be produced. The minimum sawlog top is 7 inches d.o.b. for softwoods and 9 inches d.o.b. for hardwoods.

Sawtimber stands—Stands at least 10 percent stocked with growing-stock trees, with half or more of total stocking in sawtimber or poletimber trees, and with sawtimber stocking at least equal to poletimber stocking.

Sawtimber trees—Live timber species trees meeting regional size and defect specifications. Softwood trees must be at least 9 inches d.b.h. and hardwood trees 11 inches d.b.h.

Sawtimber volume—Net volume in board feet of the sawlog portion of live sawtimber trees.

Seedlings—Established live timber species trees less than 1 inch d.b.h. or woodland species less than 1 inch d.r.c.

Site index—Expected height (in feet) of a tree on a site at age 50 (or 80 for aspen and cottonwood) calculated from height-to-age equations. Trees selected for site index calculations are dominant or codominant within the stand, age 30 to 200 years, showing high vigor.

Softwood trees—Coniferous trees that are usually evergreen and have scalelike or linear needlelike leaves.

Standard error—An expression of the degree of confidence that can be placed on an estimated total or average obtained by statistical sampling methods. Standard errors do not include technique errors that occur in photo work, field measurements, or compilation.

Stand-size classes—A classification of forest land based on the predominant size of trees present (see Sawtimber stands, Poletimber stands, and Sapling and seedling stands).

Stocking—An expression of the extent to which growing space is effectively utilized by present or potential growing-stock trees.

Stocking condition—A categorization of timberland reflecting the degree to which the site is being utilized by growing-stock trees and other conditions affecting current and prospective timber growth (see Stocking):

Overstocked—Sites at least 60 percent stocked with growing-stock trees, but overstocked with live trees, including live cull trees.

Fully stocked—Sites at least 60 percent stocked with growing-stock trees and not overstocked.

Medium to fully stocked—Sites 35 percent to 60 percent stocked with growing-stock trees. Includes areas where other trees, inhibiting vegetation, or surface conditions prevent occupancy by growing-stock trees.

Poorly stocked—Sites less than 35 percent stocked with growing-stock trees.

Nonstocked—Forest land less than 10 percent stocked with growing-stock trees.

Mature—Sites with stands older than 100 years.

Timberland—Forest land where timber species make up at least 10 percent stocking. (This is equivalent to the definition for commercial forest land in Forest Service Handbook 4809.)

Timber species—Tree species traditionally used for industrial wood products. In the Interior West States, these include aspen, cottonwood, and paper birch hardwood species and all softwood species except pinyon and juniper.

Timber stand improvement—Treatments such as thinning, pruning, release cutting, girdling, weeding, or poisoning of unwanted trees to improve growing conditions for the remaining trees.

Upper-stem portion—That part of the main stem or fork of sawtimber trees above the sawlog top to a minimum top diameter of 4 inches outside bark or to the point where the main stem or fork breaks into limbs.

Water—Streams, sloughs, estuaries, and canals more than 120 feet wide, and lakes, reservoirs, and ponds larger than 1 acre at mean high water level.

Wilderness—An area of undeveloped land currently included in the Wilderness System, managed to preserve its natural conditions and retain its primeval character and influence.

Woodland—Forest land where timber species make up less than 10 percent stocking.

Woodland average stand diameter class—A woodland stand classification based on the quadratic mean diameter (the diameter corresponding to the tree of average basal area d.r.c.) of the woodland component of the stand.

Woodland profile—A classification of woodland that combines slope, volume per acre, site class, and tree crown cover.

Woodland species—Tree species not usually converted into industrial wood products. Common uses are fuelwood, fenceposts, and Christmas trees.

REFERENCES

Benson, Robert E.; Green, Alan W.; Van Hooser, Dwane D. 1987. Idaho's forest resources. Resour. Bull. INT-39. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station. 114 p.

Cochran, William G. 1963. Sampling techniques. 2d ed. New York: John Wiley and Sons. 413 p.

Hutchison, S. Blair; Winters, R. K. 1942. Northern Idaho forest resources and industries. Misc. Publ. 508. Washington, DC: U.S. Department of Agriculture, Forest Service. 75 p.

Kemp, Paul D. 1958. Volume tables. Unpublished report on file at: U.S. Department of Agriculture, Forest Service, Intermountain Research Station, Interior West Resource Inventory, Monitoring, and Evaluation Program, Ogden, UT.

Moisen, Gretchen G. 1990. Volume equations for timber species in western Montana and northern Idaho. Unpublished report on file at: U.S. Department of Agriculture, Forest Service, Intermountain Research Station, Interior West Resource Inventory, Monitoring, and Evaluation Program, Ogden, UT.

Pissot, Henry J. 1953. Forest resources of north Idaho. Stn. Pap. 35. Missoula, MT: U.S. Department of Agriculture, Forest Service, Northern Rocky Mountain Forest and Range Experiment Station. 37 p.

Van Hooser, Dwane D. 1984. Forest statistics for private land in northern Idaho. Resour. Bull. INT-34. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station. 38 p.

Van Hooser, Dwane D.; Green, Alan W. 1985. Idaho's state and private forest resource. Resour. Bull. INT-37. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station. 78 p.

Wilson, Alvin K. 1962. Timber resources of Idaho. For. Surv. Release 3. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station. 42 p.

Table 1—Total area by ownership class and land class in northern Idaho, 1991

Ownership class	Land class											
	Nonreserved				Reserved				Total			
	Timberland	Woodland	Nonforest	Total	Timberland	Woodland	Nonforest	Total	Timberland	Woodland	Nonforest	Total
	Acres											
Land												
Public												
National Forest	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	7,791,312
Other public												
Bureau of Land Management	170,775	—	74,784	245,559	—	—	—	—	170,775	—	74,784	245,559
National Parks[2]	—	—	—	—	—	—	1,831	1,831	—	—	1,831	1,831
Miscellaneous Federal	29,858	—	15,307	45,165	155	—	—	155	30,013	—	15,307	45,320
State	694,638	—	114,471	809,109	23,511	—	9,405	32,916	718,149	—	123,876	842,025
County and municipal	6,501	—	2,906	9,407	—	—	—	—	6,501	—	2,906	9,407
Total other public	901,772	—	207,468	1,109,240	23,666	—	11,236	34,902	925,438	—	218,704	1,144,142
Total public	901,772	—	207,468	1,109,240	23,666	—	11,236	34,902	925,438	—	218,704	8,935,454
Private												
Indian Trust	61,944	—	90,435	152,379	—	—	—	—	61,944	—	90,435	152,379
Forest industry	1,066,058	—	81,439	1,147,497	—	—	—	—	1,066,058	—	81,439	1,147,497
Other private	1,427,776	—	1,814,916	3,242,692	—	—	—	—	1,427,776	—	1,814,916	3,242,692
Total private	2,555,778	—	1,986,790	4,542,568	—	—	—	—	2,555,778	—	1,986,790	4,542,568
Total land area	3,457,550	—	2,194,258	5,651,808	23,666	—	11,236	34,902	3,481,216	—	2,205,494	13,478,022
Water												177,346
Total land and water[3]	3,457,550	—	2,194,258	5,651,808	23,666	—	11,236	34,902	3,481,216	—	2,205,494	13,655,368

[1] Data not available for this report.

[2] Not included with miscellaneous Federal, a component of other public, for purpose of clarity. These lands are reserved and are included in tables 1, 2, and 4 only.

[3] U.S. Department of Commerce, Bureau of the Census. 1980.

Table 2—Area of forest land outside National Forests with percent standard error in northern Idaho, 1991

Type of forest land	Acres	Percent standard error
Timberland	3,457,550	±1.5
Woodland	—	
Reserved forest land[1]		
Timberland	23,666	
Woodland	—	
Total forest land[2]	3,481,216	

[1] Reserved land areas are estimated from aerial photos without field verification; therefore, standard errors are not calculated.

[2] On this and all following tables, totals may vary due to rounding.

Table 3—Net volume, net annual growth, and annual mortality of growing stock and sawtimber on timberland outside National Forests with percent standard error in northern Idaho

	All species	
Item	Volume	Percent standard error
Net volume, 1991		
Growing stock (M cubic feet)	7,591,122	±4.0
Sawtimber[1] (M board feet)	30,914,249	±4.5
Sawtimber[2] (M board feet)	26,147,668	±4.5
Net annual growth, 1990		
Growing stock (M cubic feet)	230,660	±4.8
Sawtimber[1] (M board feet)	1,012,390	±5.1
Sawtimber[2] (M board feet)	897,939	±5.0
Annual mortality, 1990		
Growing stock (M cubic feet)	47,552	±10.4
Sawtimber[1] (M board feet)	179,687	±13.4
Sawtimber[2] (M board feet)	152,872	±13.5

[1] International ¼-inch rule.

[2] Scribner rule.

Table 4—Total land area outside National Forests by major land class and owner group in northern Idaho, 1991

Land class	Owner group					Total
	Other public			Forest industry	Nonindustrial private	
	State	Other	Total other public			
	Acres					
Timberland						
Reserved	23,511	155	23,666	—	—	23,666
Nonreserved	694,638	207,134	901,772	1,066,058	1,489,720	3,457,550
Total	718,149	207,289	925,438	1,066,058	1,489,720	3,481,216
Woodland						
Reserved	—	—	—	—	—	—
Nonreserved	—	—	—	—	—	—
Total	—	—	—	—	—	—
Total forest land						
Reserved	23,511	155	23,666	—	—	23,666
Nonreserved	694,638	207,134	901,772	1,066,058	1,489,720	3,457,550
Total	718,149	207,289	925,438	1,066,058	1,489,720	3,481,216
Nonforest land	123,876	94,828	218,704	81,439	1,905,351	2,205,494
Total land area	842,025	302,117	1,144,142	1,147,497	3,395,071	5,686,710

TIMBERLAND TABLES

Area

Table 5—Area of timberland outside National Forests by forest type, stand-size class, and productivity class in northern Idaho, 1991

Forest type and stand-size class	Productivity class						Total acres
	225+	165-224	120-164	85-119	50-84	20-49	
	Acres						
Douglas-fir							
Sawtimber	7,125	110,712	274,924	303,043	92,622	—	788,426
Poletimber	—	—	5,779	24,926	36,984	11,968	79,657
Sapling and seedling	—	11,071	53,428	52,556	47,247	—	164,302
Nonstocked	—	—	6,317	7,125	37,152	6,235	56,829
Total	7,125	121,783	340,448	387,650	214,005	18,203	1,089,214
Western hemlock							
Sawtimber	—	—	29,282	52,951	12,787	—	95,020
Poletimber	—	—	19,552	12,081	5,730	—	37,363
Sapling and seedling	—	—	—	12,552	12,787	—	25,339
Nonstocked	—	—	—	—	6,317	—	6,317
Total	—	—	48,834	77,584	37,621	—	164,039
Mountain hemlock							
Sawtimber	—	—	—	12,458	27,752	—	40,210
Poletimber	—	—	—	6,348	6,223	—	12,571
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	—	18,806	33,975	—	52,781
Ponderosa pine							
Sawtimber	—	6,465	66,929	77,680	74,802	6,003	231,879
Poletimber	—	—	—	—	3,814	—	3,814
Sapling and seedling	—	—	6,465	6,003	28,292	—	40,760
Nonstocked	—	—	6,235	12,552	53,689	6,235	78,711
Total	—	6,465	79,629	96,235	160,597	12,238	355,164
Western white pine							
Sawtimber	—	—	11,700	—	—	—	11,700
Poletimber	—	—	—	5,733	—	—	5,733
Sapling and seedling	—	5,730	7,472	—	—	—	13,202
Nonstocked	—	—	7,125	—	—	—	7,125
Total	—	5,730	26,297	5,733	—	—	37,760
Lodgepole pine							
Sawtimber	—	11,968	27,033	46,750	17,198	—	102,949
Poletimber	—	—	6,111	30,053	26,064	6,687	68,915
Sapling and seedling	—	—	11,466	—	14,448	6,317	32,231
Nonstocked	—	—	—	—	5,774	—	5,774
Total	—	11,968	44,610	76,803	63,484	13,004	209,869
Western larch							
Sawtimber	—	—	11,896	44,456	—	—	56,352
Poletimber	—	—	5,733	10,131	—	—	15,864
Sapling and seedling	—	—	6,235	—	—	—	6,235
Nonstocked	—	—	—	—	—	—	—
Total	—	—	23,864	54,587	—	—	78,451

(con.)

Table 5 (Con.)

Forest type and stand-size class	Productivity class						Total acres
	225+	165-224	120-164	85-119	50-84	20-49	
	Acres						
Western redcedar							
Sawtimber	—	31,281	69,526	108,920	41,859	—	251,586
Poletimber	—	—	11,512	14,096	13,590	—	39,198
Sapling and seedling	—	—	6,235	63,941	7,125	—	77,301
Nonstocked	—	—	—	6,223	6,235	—	12,458
Total	—	31,281	87,273	193,180	68,809	—	380,543
Grand fir							
Sawtimber	—	61,373	173,981	185,030	66,390	—	486,774
Poletimber	—	—	12,096	24,362	—	—	36,458
Sapling and seedling	—	12,904	85,440	134,206	60,220	8,363	301,133
Nonstocked	—	—	—	26,524	6,003	7,125	39,652
Total	—	74,277	271,517	370,122	132,613	15,488	864,017
Spruce-fir							
Sawtimber	—	—	6,223	42,057	40,235	—	88,515
Poletimber	—	—	—	8,709	12,571	7,917	29,197
Sapling and seedling	—	—	—	19,043	13,089	—	32,132
Nonstocked	—	—	—	—	—	5,172	5,172
Total	—	—	6,223	69,809	65,895	13,089	155,016
Engelmann spruce							
Sawtimber	—	—	6,223	12,297	—	—	18,520
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	14,680	—	—	14,680
Total	—	—	6,223	26,977	—	—	33,200
Aspen							
Sawtimber	—	—	—	—	—	—	—
Poletimber	—	7,596	—	—	—	—	7,596
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	7,596	—	—	—	—	7,596
Cottonwood							
Sawtimber	—	—	6,235	6,466	—	—	12,701
Poletimber	—	—	5,733	5,733	—	5,733	17,199
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	11,968	12,199	—	5,733	29,900
All types							
Sawtimber	7,125	221,799	683,952	892,108	373,645	6,003	2,184,632
Poletimber	—	7,596	66,516	142,172	104,976	32,305	353,565
Sapling and seedling	—	29,705	176,741	288,301	183,208	14,680	692,635
Nonstocked	—	—	19,677	67,104	115,170	24,767	226,718
Total	7,125	259,100	946,886	1,389,685	776,999	77,755	3,457,550

Table 6—Area of other publicly owned timberland by forest type, stand-size class, and productivity class in northern Idaho, 1991

Forest type and stand-size class	Productivity class						Total acres
	225+	165-224	120-164	85-119	50-84	20-49	
	Acres						
Douglas-fir							
Sawtimber	—	12,957	72,812	98,798	10,182	—	194,749
Poletimber	—	—	5,779	—	12,096	491	18,366
Sapling and seedling	—	6,687	12,728	5,779	18,810	—	44,004
Nonstocked	—	—	6,317	—	5,779	491	12,587
Total	—	19,644	97,636	104,577	46,867	982	269,706
Western hemlock							
Sawtimber	—	—	6,347	15,026	6,317	—	27,690
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	6,808	6,317	—	13,125
Nonstocked	—	—	—	—	6,317	—	6,317
Total	—	—	6,347	21,834	18,951	—	47,132
Mountain hemlock							
Sawtimber	—	—	—	6,714	15,057	—	21,771
Poletimber	—	—	—	6,348	6,223	—	12,571
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	—	13,062	21,280	—	34,342
Ponderosa pine							
Sawtimber	—	—	20,061	2,455	7,178	—	29,694
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	1,473	—	1,473
Nonstocked	—	—	491	6,808	1,964	491	9,754
Total	—	—	20,552	9,263	10,615	491	40,921
Western white pine							
Sawtimber	—	—	5,967	—	—	—	5,967
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	5,967	—	—	—	5,967
Lodgepole pine							
Sawtimber	—	491	5,967	6,687	—	—	13,145
Poletimber	—	—	—	491	8,854	6,687	16,032
Sapling and seedling	—	—	—	—	—	6,317	6,317
Nonstocked	—	—	—	—	—	—	—
Total	—	491	5,967	7,178	8,854	13,004	35,494
Western larch							
Sawtimber	—	—	—	6,839	—	—	6,839
Poletimber	—	—	—	6,317	—	—	6,317
Sapling and seedling	—	—	491	—	—	—	491
Nonstocked	—	—	—	—	—	—	—
Total	—	—	491	13,156	—	—	13,647
Western redcedar							
Sawtimber	—	23,685	12,002	37,520	6,808	—	80,015
Poletimber	—	—	5,779	8,363	—	—	14,142
Sapling and seedling	—	—	491	11,746	—	—	12,237
Nonstocked	—	—	—	6,223	491	—	6,714
Total	—	23,685	18,272	63,852	7,299	—	113,108

(con.)

Table 6 (Con.)

Forest type and stand-size class	Productivity class						Total acres
	225+	165-224	120-164	85-119	50-84	20-49	
	Acres						
Grand fir							
Sawtimber	—	28,894	80,111	38,407	15,470	—	162,882
Poletimber	—	—	12,096	—	—	—	12,096
Sapling and seedling	—	5,779	12,049	30,368	11,558	8,363	68,117
Nonstocked	—	—	—	6,761	—	—	6,761
Total	—	34,673	104,256	75,536	27,028	8,363	249,856
Spruce-fir							
Sawtimber	—	—	6,223	23,412	25,638	—	55,273
Poletimber	—	—	—	8,709	6,223	—	14,932
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	6,223	32,121	31,861	—	70,205
Engelmann spruce							
Sawtimber	—	—	6,223	—	—	—	6,223
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	14,680	—	—	14,680
Total	—	—	6,223	14,680	—	—	20,903
Aspen							
Sawtimber	—	—	—	—	—	—	—
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Cottonwood							
Sawtimber	—	—	491	—	—	—	491
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	491	—	—	—	491
All types							
Sawtimber	—	66,027	216,204	235,858	86,650	—	604,739
Poletimber	—	—	23,654	30,228	33,396	7,178	94,456
Sapling and seedling	—	12,466	25,759	54,701	38,158	14,680	145,764
Nonstocked	—	—	6,808	34,472	14,551	982	56,813
Total	—	78,493	272,425	355,259	172,755	22,840	901,772

Table 7—Area of forest industry owned timberland by forest type, stand-size class, and productivity class in northern Idaho, 1991

Forest type and stand-size class	Productivity class						Total acres
	225+	165-224	120-164	85-119	50-84	20-49	
	Acres						
Douglas-fir							
Sawtimber	7,125	41,935	59,504	74,245	13,192	—	196,001
Poletimber	—	—	—	6,347	—	226	6,573
Sapling and seedling	—	4,384	6,182	27,067	4,610	—	42,243
Nonstocked	—	—	—	7,125	—	226	7,351
Total	7,125	46,319	65,686	114,784	17,802	452	252,168
Western hemlock							
Sawtimber	—	—	17,202	37,925	6,470	—	61,597
Poletimber	—	—	6,347	6,348	5,730	—	18,425
Sapling and seedling	—	—	—	226	6,470	—	6,696
Nonstocked	—	—	—	—	—	—	—
Total	—	—	23,549	44,499	18,670	—	86,718
Mountain hemlock							
Sawtimber	—	—	—	226	12,695	—	12,921
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	—	226	12,695	—	12,921
Ponderosa pine							
Sawtimber	—	—	4,384	5,515	10,341	—	20,240
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	678	—	678
Nonstocked	—	—	226	226	6,077	226	6,755
Total	—	—	4,610	5,741	17,096	226	27,673
Western white pine							
Sawtimber	—	—	—	—	—	—	—
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	5,730	—	—	—	—	5,730
Nonstocked	—	—	7,125	—	—	—	7,125
Total	—	5,730	7,125	—	—	—	12,855
Lodgepole pine							
Sawtimber	—	226	13,594	14,265	—	—	28,085
Poletimber	—	—	—	6,574	226	—	6,800
Sapling and seedling	—	—	—	—	4,384	—	4,384
Nonstocked	—	—	—	—	—	—	—
Total	—	226	13,594	20,839	4,610	—	39,269
Western larch							
Sawtimber	—	—	11,896	6,696	—	—	18,592
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	226	—	—	—	226
Nonstocked	—	—	—	—	—	—	—
Total	—	—	12,122	6,696	—	—	18,818
Western redcedar							
Sawtimber	—	—	40,054	40,192	29,533	—	109,779
Poletimber	—	—	—	—	7,125	—	7,125
Sapling and seedling	—	—	226	31,269	7,125	—	38,620
Nonstocked	—	—	—	—	226	—	226
Total	—	—	40,280	71,461	44,009	—	155,750

(con.)

Table 7 (Con.)

Forest type and stand-size class	Productivity class 225+	165-224	120-164	85-119	50-84	20-49	Total acres
	Acres						
Grand fir							
Sawtimber	—	24,204	51,302	84,367	24,778	—	184,651
Poletimber	—	—	—	12,855	—	—	12,855
Sapling and seedling	—	7,125	62,140	62,262	33,414	—	164,941
Nonstocked	—	—	—	452	—	7,125	7,577
Total	—	31,329	113,442	159,936	58,192	7,125	370,024
Spruce-fir							
Sawtimber	—	—	—	18,645	7,125	—	25,770
Poletimber	—	—	—	—	6,348	7,917	14,265
Sapling and seedling	—	—	—	19,043	13,089	—	32,132
Nonstocked	—	—	—	—	—	5,172	5,172
Total	—	—	—	37,688	26,562	13,089	77,339
Engelmann spruce							
Sawtimber	—	—	—	12,297	—	—	12,297
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	—	12,297	—	—	12,297
Aspen							
Sawtimber	—	—	—	—	—	—	—
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Cottonwood							
Sawtimber	—	—	226	—	—	—	226
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	226	—	—	—	226
All types							
Sawtimber	7,125	66,365	198,162	294,373	104,134	—	670,159
Poletimber	—	—	6,347	32,124	19,429	8,143	66,043
Sapling and seedling	—	17,239	68,774	139,867	69,770	—	295,650
Nonstocked	—	—	7,351	7,803	6,303	12,749	34,206
Total	7,125	83,604	280,634	474,167	199,636	20,892	1,066,058

Table 8—Area of nonindustrial private timberland by forest type, stand-size class, and productivity class in northern Idaho, 1991

Forest type and stand-size class	Productivity class						Total acres
	225+	165-224	120-164	85-119	50-84	20-49	
	Acres						
Douglas-fir							
Sawtimber	—	55,820	142,608	130,000	69,248	—	397,676
Poletimber	—	—	—	18,579	24,888	11,251	54,718
Sapling and seedling	—	—	34,518	19,710	23,827	—	78,055
Nonstocked	—	—	—	—	31,373	5,518	36,891
Total	—	55,820	177,126	168,289	149,336	16,769	567,340
Western hemlock							
Sawtimber	—	—	5,733	—	—	—	5,733
Poletimber	—	—	13,205	5,733	—	—	18,938
Sapling and seedling	—	—	—	5,518	—	—	5,518
Nonstocked	—	—	—	—	—	—	—
Total	—	—	18,938	11,251	—	—	30,189
Mountain hemlock							
Sawtimber	—	—	—	5,518	—	—	5,518
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	—	5,518	—	—	5,518
Ponderosa pine							
Sawtimber	—	6,465	42,484	69,710	57,283	6,003	181,945
Poletimber	—	—	—	—	3,814	—	3,814
Sapling and seedling	—	—	6,465	6,003	26,141	—	38,609
Nonstocked	—	—	5,518	5,518	45,648	5,518	62,202
Total	—	6,465	54,467	81,231	132,886	11,521	286,570
Western white pine							
Sawtimber	—	—	5,733	—	—	—	5,733
Poletimber	—	—	—	5,733	—	—	5,733
Sapling and seedling	—	—	7,472	—	—	—	7,472
Nonstocked	—	—	—	—	—	—	—
Total	—	—	13,205	5,733	—	—	18,938
Lodgepole pine							
Sawtimber	—	11,251	7,472	25,798	17,198	—	61,719
Poletimber	—	—	6,111	22,988	16,984	—	46,083
Sapling and seedling	—	—	11,466	—	10,064	—	21,530
Nonstocked	—	—	—	—	5,774	—	5,774
Total	—	11,251	25,049	48,786	50,020	—	135,106
Western larch							
Sawtimber	—	—	—	30,921	—	—	30,921
Poletimber	—	—	5,733	3,814	—	—	9,547
Sapling and seedling	—	—	5,518	—	—	—	5,518
Nonstocked	—	—	—	—	—	—	—
Total	—	—	11,251	34,735	—	—	45,986
Western redcedar							
Sawtimber	—	7,596	17,470	31,208	5,518	—	61,792
Poletimber	—	—	5,733	5,733	6,465	—	17,931
Sapling and seedling	—	—	5,518	20,926	—	—	26,444
Nonstocked	—	—	—	—	5,518	—	5,518
Total	—	7,596	28,721	57,867	17,501	—	111,685

(con.)

Table 8 (Con.)

Forest type and stand-size class	Productivity class						Total acres
	225+	165-224	120-164	85-119	50-84	20-49	
	Acres						
Grand fir							
Sawtimber	—	8,275	42,568	62,256	26,142	—	139,241
Poletimber	—	—	—	11,507	—	—	11,507
Sapling and seedling	—	—	11,251	41,576	15,248	—	68,075
Nonstocked	—	—	—	19,311	6,003	—	25,314
Total	—	8,275	53,819	134,650	47,393	—	244,137
Spruce-fir							
Sawtimber	—	—	—	—	7,472	—	7,472
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	—	—	7,472	—	7,472
Engelmann spruce							
Sawtimber	—	—	—	—	—	—	—
Poletimber	—	—	—	—	—	—	—
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Aspen							
Sawtimber	—	—	—	—	—	—	—
Poletimber	—	7,596	—	—	—	—	7,596
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	7,596	—	—	—	—	7,596
Cottonwood							
Sawtimber	—	—	5,518	6,466	—	—	11,984
Poletimber	—	—	5,733	5,733	—	5,733	17,199
Sapling and seedling	—	—	—	—	—	—	—
Nonstocked	—	—	—	—	—	—	—
Total	—	—	11,251	12,199	—	5,733	29,183
All types							
Sawtimber	—	89,407	269,586	361,877	182,861	6,003	909,734
Poletimber	—	7,596	36,515	79,820	52,151	16,984	193,066
Sapling and seedling	—	—	82,208	93,733	75,280	—	251,221
Nonstocked	—	—	5,518	24,829	94,316	11,036	135,699
Total	—	97,003	393,827	560,259	404,608	34,023	1,489,720

Table 9—Area of timberland outside National Forests by stand volume (International ¼-inch rule) and owner group in northern Idaho, 1991

	Owner group					
	Other public					
Stand volume per acre	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Acres					
Less than 1,500 board feet	157,099	31,828	188,927	275,145	295,723	759,795
1,500 to 4,999 board feet	99,508	29,179	128,687	230,977	431,092	790,756
5,000 to 9,999 board feet	106,097	36,319	142,416	177,982	330,557	650,955
10,000 board feet or more	331,934	109,808	441,742	381,954	432,348	1,256,044
All classes	694,638	207,134	901,772	1,066,058	1,489,720	3,457,550

Table 10—Area of timberland outside National Forests by forest type and stocking condition in northern Idaho, 1991

	Stocking condition						
Forest type	Overstocked	Fully stocked	Medium to fully stocked	Poorly stocked	Mature	Nonstocked	All classes
	Acres						
Douglas-fir	37,125	128,547	456,530	286,442	123,741	56,829	1,089,214
Western hemlock	43,833	16,462	37,655	27,731	32,043	6,317	164,041
Mountain hemlock	6,223	6,348	12,583	6,347	21,280	—	52,781
Ponderosa pine	7,472	16,634	89,213	149,760	13,374	78,711	355,164
Western white pine	—	—	18,938	11,697	—	7,125	37,760
Lodgepole pine	39,095	55,921	64,089	38,986	6,003	5,774	209,868
Western larch	35,232	19,053	5,733	18,434	—	—	78,452
Western redcedar	84,449	68,554	89,109	73,733	52,240	12,458	380,543
Grand fir	81,820	229,299	321,977	128,799	62,468	39,652	864,015
Spruce-fir	27,292	48,189	35,198	13,089	26,076	5,172	155,016
Engelmann spruce	—	—	—	5,172	13,348	14,680	33,200
Aspen	7,596	—	—	—	—	—	7,596
Cottonwood	—	17,702	6,465	5,733	—	—	29,900
All types	370,137	606,709	1,137,490	765,923	350,573	226,718	3,457,550

Table 11—Number of growing-stock trees on timberland outside National Forests by species and diameter class in northern Idaho, 1991

Species	Diameter class (inches at breast height)															
	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	All classes
	Thousand trees															
Douglas-fir	76,471	51,100	31,696	24,119	19,954	15,414	10,023	7,877	4,145	3,077	1,505	820	457	174	255	247,087
Ponderosa pine	10,918	8,123	6,941	2,956	5,364	3,233	2,751	1,901	1,727	1,024	549	377	277	144	220	46,505
Western white pine	9,831	3,388	2,806	1,173	425	666	948	565	154	100	39	47	14	—	—	20,156
Lodgepole pine	20,991	14,404	16,046	10,900	5,674	4,811	2,576	645	257	22	15	16	—	—	—	76,357
Whitebark pine	401	—	324	—	—	—	—	86	62	—	—	—	—	—	—	873
Limber pine	1,122	—	326	—	—	—	—	—	—	—	—	—	—	—	—	1,448
Western larch	6,744	6,505	9,426	8,238	5,608	3,667	2,397	1,222	672	218	186	126	146	128	106	45,389
Grand fir	228,496	92,169	38,982	24,242	13,383	11,176	6,460	4,017	2,239	1,398	637	422	279	149	362	424,411
Subalpine fir	31,853	12,356	9,013	5,459	2,166	1,970	925	455	111	194	72	32	37	15	—	64,658
Engelmann spruce	7,427	3,915	2,813	1,106	1,418	1,234	554	272	228	274	201	235	57	51	68	19,853
Western hemlock	87,179	30,284	18,180	10,345	3,662	3,844	2,251	1,116	438	710	376	142	159	92	89	158,867
Western redcedar	143,631	55,246	19,896	13,830	8,205	4,887	3,498	2,107	1,392	827	682	405	174	214	269	255,263
Total softwoods	625,064	277,490	156,449	102,368	65,859	50,902	32,383	20,263	11,425	7,844	4,262	2,622	1,600	967	1,369	1,360,867
Aspen	5,860	2,990	2,751	1,216	602	232	129	30	—	32	24	—	—	—	—	13,866
Cottonwood	6,250	12,263	6,350	4,456	1,679	585	550	133	139	86	93	62	42	23	38	32,749
Total hardwoods	12,110	15,253	9,101	5,672	2,281	817	679	163	139	118	117	62	42	23	38	46,615
All species	637,174	292,743	165,550	108,040	68,140	51,719	33,062	20,426	11,564	7,962	4,379	2,684	1,642	990	1,407	1,407,482

Table 12—Number of cull and salvable dead trees on timberland outside National Forests by owner group for softwoods and hardwoods in northern Idaho, 1991

Owner group	Species group	Cull trees			Salvable dead trees	Total
		Rough	Rotten	Total		
		Thousand trees				
Other public						
State	Softwoods	527	846	1,373	7,858	9,231
	Hardwoods	450	—	450	—	450
	Total	977	846	1,823	7,858	9,681
Other	Softwoods	163	183	346	2,437	2,783
	Hardwoods	49	—	49	—	49
	Total	212	183	395	2,437	2,832
Total other public	Softwoods	690	1,029	1,719	10,295	12,014
	Hardwoods	499	—	499	—	499
	Total	1,189	1,029	2,218	10,295	12,513
Forest industry						
	Softwoods	2,195	1,909	4,104	7,363	11,467
	Hardwoods	6	—	6	—	6
	Total	2,201	1,909	4,110	7,363	11,473
Private						
	Softwoods	3,667	1,121	4,788	11,923	16,711
	Hardwoods	304	36	340	—	340
	Total	3,971	1,157	5,128	11,923	17,051
Total						
	Softwoods	6,552	4,059	10,611	29,581	40,192
	Hardwoods	809	36	845	—	845
	Total	7,361	4,095	11,456	29,581	41,037

Volume

Table 13—Net volume of growing stock on timberland outside National Forests by forest type and stand-size class in northern Idaho, 1991

Forest type	Stand-size class				All classes
	Sawtimber	Poletimber	Sapling/ seedling	Nonstocked	
	Thousand cubic feet				
Douglas-fir	2,300,218	105,931	92,048	7,529	2,505,726
Western hemlock	286,524	87,184	13,123	—	386,831
Mountain hemlock	173,584	16,322	—	—	189,906
Ponderosa pine	400,137	1,916	28,332	7,782	438,167
Western white pine	33,357	4,471	3,990	—	41,818
Lodgepole pine	323,227	127,440	28,555	—	479,222
Western larch	198,714	44,094	1,582	—	244,390
Western redcedar	868,423	90,809	60,009	5,578	1,024,819
Grand fir	1,636,159	63,532	78,102	12,502	1,790,295
Spruce-fir	286,288	42,778	19,935	—	349,001
Engelmann spruce	44,469	—	—	—	44,469
Aspen	—	15,792	—	—	15,792
Cottonwood	42,470	38,216	—	—	80,686
All types	6,593,570	638,485	325,676	33,391	7,591,122

Table 14—Net volume of sawtimber (International ¼-inch rule) on timberland outside National Forests by forest type and stand-size class in northern Idaho, 1991

Forest type	Stand-size class Sawtimber	Poletimber	Sapling/ seedling	Nonstocked	All classes
	Thousand board feet				
Douglas-fir	10,075,365	196,866	385,484	31,238	10,688,953
Western hemlock	1,284,369	121,178	54,065	—	1,459,612
Mountain hemlock	921,253	28,367	—	—	949,620
Ponderosa pine	2,191,582	4,834	138,026	40,972	2,375,414
Western white pine	147,483	4,721	—	—	152,204
Lodgepole pine	1,380,908	216,224	107,180	—	1,704,312
Western larch	905,247	67,093	—	—	972,340
Western redcedar	3,422,381	191,217	161,471	21,002	3,796,071
Grand fir	6,617,263	53,636	225,829	69,745	6,966,473
Spruce-fir	1,224,682	69,318	86,849	—	1,380,849
Engelmann spruce	257,289	—	—	—	257,289
Aspen	—	14,868	—	—	14,868
Cottonwood	166,711	29,533	—	—	196,244
All types	28,594,533	997,855	1,158,904	162,957	30,914,249

Table 15—Net volume of sawtimber (Scribner rule) on timberland outside National Forests by forest type and stand-size class in northern Idaho, 1991

Forest type	Stand-size class Sawtimber	Poletimber	Sapling/ seedling	Nonstocked	All classes
	Thousand board feet				
Douglas-fir	8,548,096	160,565	322,203	25,656	9,056,520
Western hemlock	1,098,588	96,557	46,351	—	1,241,496
Mountain hemlock	801,440	22,718	—	—	824,158
Ponderosa pine	1,824,604	3,779	113,954	33,095	1,975,432
Western white pine	124,044	3,233	—	—	127,277
Lodgepole pine	1,174,342	182,103	85,797	—	1,442,242
Western larch	740,776	54,691	—	—	795,467
Western redcedar	2,858,805	156,752	132,861	18,083	3,166,501
Grand fir	5,659,370	42,435	186,156	58,452	5,946,413
Spruce-fir	1,044,939	54,449	74,118	—	1,173,506
Engelmann spruce	226,137	—	—	—	226,137
Aspen	—	12,125	—	—	12,125
Cottonwood	140,592	19,802	—	—	160,394
All types	24,241,733	809,209	961,440	135,286	26,147,668

Table 16—Net volume of growing stock on timberland outside National Forests by species and owner group in northern Idaho, 1991

	Owner group					
	Other public					
Species	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Thousand cubic feet					
Douglas-fir	501,189	176,339	677,528	573,145	913,255	2,163,928
Ponderosa pine	81,486	33,436	114,922	75,400	393,389	583,711
Western white pine	35,872	7,349	43,221	50,213	42,259	135,693
Lodgepole pine	110,084	35,237	145,321	106,045	280,064	531,430
Whitebark pine	2,417	437	2,854	—	6,970	9,824
Limber pine	14	14	28	13	310	351
Western larch	117,924	38,515	156,439	197,592	206,116	560,147
Grand fir	496,318	166,201	662,519	600,380	428,536	1,691,435
Subalpine fir	90,202	24,060	114,262	68,205	24,887	207,354
Engelmann spruce	72,746	35,683	108,429	83,721	8,738	200,888
Western hemlock	158,213	58,441	216,654	207,238	98,980	522,872
Western redcedar	206,183	43,994	250,177	330,564	176,945	757,686
Total softwoods	1,872,648	619,706	2,492,354	2,292,516	2,580,449	7,365,319
Aspen	2,122	328	2,450	2,994	37,987	43,431
Cottonwood	10,619	2,505	13,124	17,584	151,664	182,372
Total hardwoods	12,741	2,833	15,574	20,578	189,651	225,803
All species	1,885,389	622,539	2,507,928	2,313,094	2,770,100	7,591,122

Table 17—Net volume of sawtimber (International ¼-inch rule) on timberland outside National Forests by species and owner group in northern Idaho, 1991

	Owner group					
	Other public					
Species	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Thousand board feet					
Douglas-fir	2,197,782	789,220	2,987,002	2,499,929	3,793,590	9,280,521
Ponderosa pine	552,156	230,272	782,428	467,798	2,270,144	3,520,370
Western white pine	180,077	34,456	214,533	223,913	174,208	612,654
Lodgepole pine	403,144	142,462	545,606	331,459	991,477	1,868,542
Whitebark pine	10,903	1,043	11,946	—	36,536	48,482
Limber pine	—	—	—	—	—	—
Western larch	526,305	190,665	716,970	948,538	902,023	2,567,531
Grand fir	1,880,592	658,352	2,538,944	2,096,293	1,523,224	6,158,461
Subalpine fir	282,687	59,539	342,226	186,222	72,641	601,089
Engelmann spruce	411,346	211,975	623,321	389,879	40,395	1,053,595
Western hemlock	755,161	283,783	1,038,944	973,371	336,871	2,349,186
Western redcedar	690,878	147,639	838,517	1,123,248	524,267	2,486,032
Total softwoods	7,891,031	2,749,406	10,640,437	9,240,650	10,665,376	30,546,463
Aspen	—	—	—	14,246	57,685	71,931
Cottonwood	3,689	3,610	7,299	29,166	259,390	295,855
Total hardwoods	3,689	3,610	7,299	43,412	317,075	367,786
All species	7,894,720	2,753,016	10,647,736	9,284,062	10,982,451	30,914,249

Table 18—Net volume of sawtimber (Scribner rule) on timberland outside National Forests by species and owner group in northern Idaho, 1991

	Owner group					
	Other public					
Species	**State**	**Other**	**Total other public**	**Forest industry**	**Nonindustrial private**	**Total**
	Thousand board feet					
Douglas-fir	1,887,645	677,759	2,565,404	2,133,281	3,215,829	7,914,514
Ponderosa pine	473,363	198,587	671,950	391,921	1,884,014	2,947,885
Western white pine	155,372	29,944	185,316	194,167	150,175	529,658
Lodgepole pine	343,429	122,181	465,610	283,502	844,271	1,593,383
Whitebark pine	9,704	928	10,632	—	32,498	43,130
Limber pine	—	—	—	—	—	—
Western larch	440,341	161,876	602,217	776,517	709,313	2,088,047
Grand fir	1,628,076	570,690	2,198,766	1,798,803	1,307,772	5,305,341
Subalpine fir	239,705	50,497	290,202	155,636	62,322	508,160
Engelmann spruce	357,684	185,267	542,951	337,486	34,665	915,102
Western hemlock	651,978	246,375	898,353	844,104	282,246	2,024,703
Western redcedar	559,431	119,353	678,784	894,437	415,524	1,988,745
Total softwoods	6,746,728	2,363,457	9,110,185	7,809,854	8,938,629	25,858,668
Aspen	—	—	—	12,388	50,003	62,391
Cottonwood	3,262	3,193	6,455	19,985	200,169	226,609
Total hardwoods	3,262	3,193	6,455	32,373	250,172	289,000
All species	6,749,990	2,366,650	9,116,640	7,842,227	9,188,801	26,147,668

Table 19—Net volume of growing stock on timberland outside National Forests by species and diameter class in northern Idaho, 1991

Species	Diameter class (inches at breast height)													All classes
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	
	Thousand cubic feet													
Douglas-fir	86,290	156,426	237,577	298,300	289,479	317,192	218,782	212,614	125,395	85,472	55,638	26,284	54,478	2,163,927
Ponderosa pine	13,326	17,044	48,475	52,310	67,536	67,585	79,599	62,306	42,484	37,311	29,976	20,732	45,029	583,713
Western white pine	7,895	9,898	5,929	16,424	36,680	29,395	10,650	7,417	4,412	4,885	2,108	—	—	135,693
Lodgepole pine	59,328	100,753	98,102	125,918	92,901	32,017	17,084	1,618	1,957	1,752	—	—	—	531,430
Whitebark pine	490	—	—	—	—	5,151	4,184	—	—	—	—	—	—	9,825
Limber pine	350	—	—	—	—	—	—	—	—	—	—	—	—	350
Western larch	29,656	66,348	82,818	89,434	76,484	53,848	40,704	15,401	15,355	13,985	18,562	22,389	35,163	560,147
Grand fir	117,987	186,930	197,030	264,324	215,061	192,697	138,869	111,093	59,747	48,977	37,696	25,037	95,987	1,691,435
Subalpine fir	33,616	40,114	25,436	34,826	25,511	16,256	5,591	12,129	6,349	2,679	3,165	1,680	—	207,352
Engelmann spruce	7,838	8,309	16,786	24,940	17,444	12,150	13,187	20,007	18,545	28,750	7,807	9,423	15,702	200,888
Western hemlock	34,325	60,057	44,381	74,652	70,862	44,914	26,323	54,432	35,760	17,284	22,704	16,488	20,691	522,873
Western redcedar	71,468	91,443	91,269	83,874	85,789	72,568	57,406	44,781	44,837	31,641	15,971	23,851	42,788	757,686
Total softwoods	462,569	737,322	847,803	1,065,002	977,747	843,773	612,379	541,798	354,841	272,736	193,627	145,884	309,838	7,365,319
Aspen	11,661	8,817	9,009	5,645	4,026	1,285	—	1,575	1,412	—	—	—	—	43,430
Cottonwood	35,928	46,953	29,818	13,609	16,945	5,485	6,170	4,623	6,259	4,976	3,679	2,597	5,331	182,373
Total hardwoods	47,589	55,770	38,827	19,254	20,971	6,770	6,170	6,198	7,671	4,976	3,679	2,597	5,331	225,803
All species	510,158	793,092	886,630	1,084,256	998,718	850,543	618,549	547,996	362,512	277,712	197,306	148,481	315,169	7,591,122

Table 20—Net volume of sawtimber (International ¼-inch rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1991

Species	Diameter class (inches at breast height)										
	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	All classes
	Thousand board feet											
Douglas-fir	814,636	1,344,306	1,396,553	1,587,229	1,132,466	1,117,812	673,963	463,056	305,136	143,872	301,491	9,280,520
Ponderosa pine	161,214	252,689	389,549	429,942	533,812	434,776	303,256	273,524	224,575	162,241	354,792	3,520,370
Western white pine	18,750	78,218	188,291	155,189	58,806	43,022	26,277	31,212	12,889	—	—	612,654
Lodgepole pine	396,499	681,013	503,663	169,922	89,301	8,824	9,989	9,330	—	—	—	1,868,541
Whitebark pine	—	—	—	26,633	21,848	—	—	—	—	—	—	48,481
Limber pine	—	—	—	—	—	—	—	—	—	—	—	—
Western larch	358,627	510,569	454,537	325,210	248,893	97,832	100,002	85,367	106,853	116,215	163,426	2,567,531
Grand fir	689,045	1,197,171	1,017,788	924,796	666,652	529,893	282,707	223,247	166,798	104,693	355,671	6,158,461
Subalpine fir	87,103	164,626	122,659	77,820	26,575	57,102	30,692	12,562	14,367	7,583	—	601,089
Engelmann spruce	62,361	139,812	98,390	69,159	75,389	114,872	107,870	174,592	48,470	60,343	102,337	1,053,595
Western hemlock	168,077	382,325	394,599	258,202	153,536	318,920	214,008	103,275	136,253	98,420	121,573	2,349,188
Western redcedar	285,993	341,949	361,929	312,894	251,053	200,358	202,965	144,415	73,406	110,247	200,823	2,486,032
Total softwoods	3,042,305	5,092,678	4,927,958	4,336,996	3,258,331	2,923,411	1,951,729	1,520,580	1,088,747	803,614	1,600,113	30,546,462
Aspen	XXXXX [1]	29,871	20,980	6,537	—	7,765	6,778	—	—	—	—	71,931
Cottonwood	XXXXX	52,836	63,304	25,029	27,920	21,467	28,912	22,765	16,828	11,990	24,805	295,856
Total hardwoods	XXXXX	82,707	84,284	31,566	27,920	29,232	35,690	22,765	16,828	11,990	24,805	367,787
All species	3,042,305	5,175,385	5,012,242	4,368,562	3,286,251	2,952,643	1,987,419	1,543,345	1,105,575	815,604	1,624,918	30,914,249

[1] Hardwoods are not considered sawtimber until they are 11 inches d.b.h.

Table 21—Net volume of sawtimber (Scribner rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1991

Species	Diameter class (inches at breast height)											All classes
	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	
	Thousand board feet											
Douglas-fir	654,055	1,080,388	1,172,878	1,362,575	984,523	980,203	599,827	412,120	271,571	128,046	268,327	7,914,513
Ponderosa pine	104,899	191,262	315,037	358,637	451,403	371,353	261,090	237,221	197,018	144,201	315,765	2,947,886
Western white pine	15,062	64,336	161,865	135,719	52,049	38,224	23,298	27,635	11,471	—	—	529,659
Lodgepole pine	334,396	571,303	433,460	149,741	79,435	7,853	8,890	8,304	—	—	—	1,593,382
Whitebark pine	—	—	—	23,684	19,445	—	—	—	—	—	—	43,129
Limber pine	—	—	—	—	—	—	—	—	—	—	—	—
Western larch	266,462	381,937	361,704	270,998	213,853	85,210	88,009	75,913	95,081	103,431	145,449	2,088,047
Grand fir	564,312	992,348	871,844	808,800	588,931	470,747	251,494	198,690	148,451	93,177	316,547	5,305,341
Subalpine fir	72,028	133,234	103,992	67,147	23,304	50,466	27,316	11,163	12,762	6,749	—	508,161
Engelmann spruce	52,647	114,095	83,257	59,595	65,585	100,609	96,004	155,387	43,138	53,705	91,080	915,102
Western hemlock	132,232	308,683	339,136	227,774	136,647	283,839	187,643	91,692	121,265	87,593	108,200	2,024,704
Western redcedar	226,627	262,215	280,840	244,036	196,296	159,977	165,870	120,406	62,153	94,692	175,633	1,988,745
Total softwoods	2,422,720	4,099,801	4,124,013	3,708,706	2,811,471	2,548,481	1,709,441	1,338,531	962,910	711,594	1,421,001	25,858,669
Aspen	XXXXX[1]	25,406	18,242	5,800	—	6,911	6,032	—	—	—	—	62,391
Cottonwood	XXXXX	32,287	37,982	20,353	23,199	19,070	25,732	20,261	14,976	10,671	22,077	226,608
Total hardwoods	XXXXX	57,693	56,224	26,153	23,199	25,981	31,764	20,261	14,976	10,671	22,077	288,999
All species	2,422,720	4,157,494	4,180,237	3,734,859	2,834,670	2,574,462	1,741,205	1,358,792	977,886	722,265	1,443,078	26,147,668

[1] Hardwoods are not considered sawtimber until they are 11 inches d.b.h.

Table 22—Net volume of timber on timberland outside National Forests by class of timber for softwoods and hardwoods in northern Idaho, 1991

Class of timber	Softwoods	Hardwoods	Total
	Thousand cubic feet		
Sawtimber trees			
Sawlog portion	5,478,160	64,737	5,542,897
Upper-stem portion	687,266	18,880	706,146
Total	6,165,426	83,617	6,249,043
Poletimber trees	1,199,893	142,186	1,342,079
All growing-stock trees	7,365,319	225,803	7,591,122
Rough cull trees	66,328	4,819	71,147
Rotten cull trees	70,799	496	71,295
Salvable dead trees	265,686	—	265,686
All timber	7,768,132	231,118	7,999,250

Table 23—Net volume of growing stock on timberland outside National Forests by forest type and species in northern Idaho, 1991

Forest type	Douglas-fir	Ponderosa pine	Western white pine	Lodgepole pine	Whitebark pine	Limber pine	Western larch	Grand fir	Subalpine fir	Engelmann spruce	Western hemlock	Western redcedar	Total softwoods	Aspen	Cottonwood	Total hardwoods	All species
	Thousand cubic feet																
Douglas-fir	1,639,740	173,816	38,240	87,743	6,970	—	152,938	233,225	4,577	13,255	12,625	103,653	2,466,782	8,889	30,055	38,944	2,505,726
Western hemlock	11,791	—	3,842	2,746	—	—	26,612	38,414	—	—	231,310	57,173	371,888	1,231	13,712	14,943	386,831
Mountain hemlock	2,200	—	—	—	—	—	4,415	1,512	13,040	698	167,336	705	189,906	—	—	—	189,906
Ponderosa pine	55,102	331,013	1,898	21,372	—	—	18,122	10,660	—	—	—	—	438,167	—	—	—	438,167
Western white pine	3,473	1,308	15,228	—	—	—	6,388	3,267	—	—	—	701	30,365	3,761	7,692	11,453	41,818
Lodgepole pine	32,594	15,459	7,156	352,007	—	350	25,958	9,686	6,576	6,714	1,386	8,171	466,057	5,151	8,013	13,164	479,221
Western larch	42,042	4,822	12,188	13,541	—	—	119,269	15,200	—	1,503	2,207	24,939	235,711	—	8,680	8,680	244,391
Western redcedar	123,727	5,006	17,830	21,315	—	—	63,815	250,592	—	2,086	52,633	436,144	973,148	8,895	42,776	51,671	1,024,819
Grand fir	237,800	43,429	38,784	23,860	—	—	122,808	1,118,346	7,256	28,650	35,964	120,338	1,777,235	1,412	11,648	13,060	1,790,295
Spruce-fir	9,511	—	527	8,846	2,854	—	11,596	2,716	173,689	115,462	17,937	5,862	349,000	—	—	—	349,000
Engelmann spruce	2,016	—	—	—	—	—	5,915	1,804	2,216	32,518	—	—	44,469	—	—	—	44,469
Aspen	—	—	—	—	—	—	—	6,015	—	—	—	—	6,015	9,777	—	9,777	15,792
Cottonwood	3,931	8,860	—	—	—	—	2,312	—	—	—	1,474	—	16,577	4,314	59,796	64,110	80,687
All types	2,163,927	583,713	135,693	531,430	9,824	350	560,148	1,691,437	207,354	200,886	522,872	757,686	7,365,320	43,430	182,372	225,802	7,591,122

Table 24—Net volume of sawtimber (International ¼-inch rule) on timberland outside National Forests by forest type and species in northern Idaho, 1991

Forest type	Douglas-fir	Ponderosa pine	Western white pine	Lodgepole pine	Whitebark pine	Limber pine	Western larch	Grand fir	Subalpine fir
	Thousand board feet								
Douglas-fir	7,033,595	1,097,947	180,748	334,342	36,536	—	696,734	864,151	4,306
Western hemlock	40,652	—	8,669	—	—	—	113,032	133,001	—
Mountain hemlock	10,052	—	—	—	—	—	29,516	6,886	42,169
Ponderosa pine	263,043	1,887,941	9,777	99,224	—	—	84,120	31,309	—
Western white pine	15,583	8,692	67,865	—	—	—	36,061	10,085	—
Lodgepole pine	125,202	98,660	36,757	1,181,597	—	—	138,596	10,425	11,236
Western larch	172,611	32,474	58,522	47,042	—	—	490,721	49,939	—
Western redcedar	525,122	26,829	87,516	85,596	—	—	334,620	915,203	—
Grand fir	1,031,195	298,076	162,800	79,172	—	—	545,078	4,107,123	18,410
Spruce-fir	40,884	—	—	41,568	11,946	—	63,170	6,942	514,387
Engelmann spruce	10,071	—	—	—	—	—	32,368	8,529	10,581
Aspen	—	—	—	—	—	—	—	14,868	—
Cottonwood	12,511	69,751	—	—	—	—	3,513	—	—
All types	9,280,521	3,520,370	612,654	1,868,541	48,482	—	2,567,529	6,158,461	601,089

Forest type	Engelmann spruce	Western hemlock	Western redcedar	Total softwoods	Aspen	Cottonwood	Total hardwoods	All species
	Thousand board feet							
Douglas-fir	63,372	31,057	288,188	10,630,976	12,771	45,206	57,977	10,688,953
Western hemlock	—	954,059	192,894	1,442,307	6,481	10,825	17,306	1,459,613
Mountain hemlock	—	860,996	—	949,619	—	—	—	949,619
Ponderosa pine	—	—	—	2,375,414	—	—	—	2,375,414
Western white pine	—	—	2,565	140,851	—	11,353	11,353	152,204
Lodgepole pine	39,041	7,111	31,500	1,680,125	14,271	9,916	24,187	1,704,312
Western larch	8,516	—	86,930	946,755	—	25,584	25,584	972,339
Western redcedar	7,859	222,955	1,467,800	3,673,500	31,630	90,941	122,571	3,796,071
Grand fir	154,080	172,678	391,083	6,959,695	6,778	—	6,778	6,966,473
Spruce-fir	584,987	91,893	25,072	1,380,849	—	—	—	1,380,849
Engelmann spruce	195,740	—	—	257,289	—	—	—	257,289
Aspen	—	—	—	14,868	—	—	—	14,868
Cottonwood	—	8,438	—	94,213	—	102,032	102,032	196,245
All types	1,053,595	2,349,187	2,486,032	30,546,461	71,931	295,857	367,788	30,914,249

Table 25—Net volume of sawtimber (Scribner rule) on timberland outside National Forests by forest type and species in northern Idaho, 1991

Forest type	Species								
	Douglas-fir	Ponderosa pine	Western white pine	Lodgepole pine	Whitebark pine	Limber pine	Western larch	Grand fir	Subalpine fir
	Thousand board feet								
Douglas-fir	5,996,384	929,292	157,024	283,364	32,498	—	557,124	744,947	3,416
Western hemlock	33,881	—	7,467	—	—	—	93,504	113,482	—
Mountain hemlock	8,946	—	—	—	—	—	25,924	5,696	37,296
Ponderosa pine	227,133	1,561,067	8,289	85,455	—	—	66,239	27,249	—
Western white pine	12,968	7,350	59,642	—	—	—	29,934	8,840	—
Lodgepole pine	103,962	83,266	30,569	1,010,726	—	—	111,676	8,272	9,065
Western larch	145,970	27,644	49,695	39,514	—	—	392,852	42,239	—
Western redcedar	451,663	21,495	76,367	72,199	—	—	275,300	791,781	—
Grand fir	878,982	255,886	140,606	66,816	—	—	449,449	3,537,421	15,880
Spruce-fir	34,943	—	—	35,309	10,632	—	54,111	5,772	433,251
Engelmann spruce	8,830	—	—	—	—	—	28,808	7,515	9,253
Aspen	—	—	—	—	—	—	—	12,125	—
Cottonwood	10,851	61,885	—	—	—	—	3,127	—	—
All types	7,914,513	2,947,885	529,659	1,593,383	43,130	—	2,088,048	5,305,339	508,161

Forest type	Species							
	Engelmann spruce	Western hemlock	Western redcedar	Total softwoods	Aspen	Cottonwood	Total hardwoods	All species
	Thousand board feet							
Douglas-fir	55,809	24,858	228,447	9,013,163	11,166	32,190	43,356	9,056,519
Western hemlock	—	823,549	156,060	1,227,943	5,476	8,078	13,554	1,241,497
Mountain hemlock	—	746,296	—	824,158	—	—	—	824,158
Ponderosa pine	—	—	—	1,975,432	—	—	—	1,975,432
Western white pine	—	—	1,730	120,464	—	6,812	6,812	127,276
Lodgepole pine	34,747	5,738	24,526	1,422,547	12,519	7,176	19,695	1,442,242
Western larch	6,971	—	68,276	773,161	—	22,306	22,306	795,467
Western redcedar	6,587	192,436	1,178,501	3,066,329	27,196	72,977	100,173	3,166,502
Grand fir	134,888	149,001	311,452	5,940,381	6,032	—	6,032	5,946,413
Spruce-fir	504,368	75,367	19,753	1,173,506	—	—	—	1,173,506
Engelmann spruce	171,731	—	—	226,137	—	—	—	226,137
Aspen	—	—	—	12,125	—	—	—	12,125
Cottonwood	—	7,460	—	83,323	—	77,071	77,071	160,394
All types	915,101	2,024,705	1,988,745	25,858,669	62,389	226,610	288,999	26,147,668

Growth

Table 26—Net annual growth of growing stock on timberland outside National Forests by species and owner group in northern Idaho, 1990

	Owner group					
	Other public					
Species	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Thousand cubic feet					
Douglas-fir	14,774	4,984	19,758	14,628	34,832	69,218
Ponderosa pine	1,132	–27	1,105	2,217	13,895	17,217
Western white pine	–1,108	–497	–1,605	–426	1,216	–815
Lodgepole pine	2,403	439	2,842	1,331	6,703	10,876
Whitebark pine	51	17	68	—	45	113
Limber pine	1	1	2	1	16	19
Western larch	2,743	571	3,314	3,135	7,012	13,461
Grand fir	15,893	4,694	20,587	23,267	19,650	63,504
Subalpine fir	187	25	212	2,713	337	3,262
Engelmann spruce	1,077	279	1,356	2,572	339	4,267
Western hemlock	4,339	1,546	5,885	6,656	4,365	16,906
Western redcedar	5,485	1,194	6,679	10,690	7,554	24,923
Total softwoods	46,977	13,226	60,203	66,784	95,964	222,951
Aspen	68	22	90	137	1,714	1,941
Cottonwood	130	35	165	477	5,126	5,768
Total hardwoods	198	57	255	614	6,840	7,709
All species	47,175	13,283	60,458	67,398	102,804	230,660

Table 27—Net annual growth of sawtimber (International ¼-inch rule) on timberland outside National Forests by species and owner group in northern Idaho, 1990

	Owner group					
	Other public					
Species	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Thousand board feet					
Douglas-fir	71,425	27,065	98,490	74,095	170,281	342,866
Ponderosa pine	9,564	1,041	10,605	15,354	94,880	120,839
Western white pine	–8,022	–3,016	–11,038	–2,454	4,930	–8,562
Lodgepole pine	6,310	2,216	8,526	14,016	25,837	48,379
Whitebark pine	176	17	193	—	223	416
Limber pine	—	—	—	—	—	—
Western larch	8,693	2,521	11,214	17,880	32,039	61,133
Grand fir	75,140	25,030	100,170	96,311	66,058	262,539
Subalpine fir	–793	–1,173	–1,966	757	4,980	3,771
Engelmann spruce	10,840	2,006	12,846	8,181	3,127	24,154
Western hemlock	21,468	6,741	28,209	22,372	10,446	61,027
Western redcedar	20,711	4,611	25,322	39,609	26,581	91,512
Total softwoods	215,512	67,059	282,571	286,121	439,382	1,008,074
Aspen	—	—	—	596	966	1,562
Cottonwood	55	54	109	293	2,352	2,754
Total hardwoods	55	54	109	889	3,318	4,316
All species	215,567	67,113	282,680	287,010	442,700	1,012,390

Table 28—Net annual growth of sawtimber (Scribner rule) on timberland outside National Forests by species and owner group in northern Idaho, 1990

	Owner group					
	Other public					
Species	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Thousand board feet					
Douglas-fir	62,951	23,631	86,582	66,457	150,456	303,495
Ponderosa pine	8,572	1,103	9,675	13,315	78,507	101,497
Western white pine	–6,861	–2,591	–9,452	–1,757	4,685	–6,524
Lodgepole pine	5,932	2,049	7,981	12,637	23,576	44,194
Whitebark pine	157	15	172	—	201	373
Limber pine	—	—	—	—	—	—
Western larch	7,469	2,226	9,695	16,360	29,351	55,406
Grand fir	67,463	22,322	89,785	86,844	60,298	236,927
Subalpine fir	–398	–977	–1,375	1,104	4,448	4,177
Engelmann spruce	9,698	1,812	11,510	7,389	2,789	21,688
Western hemlock	19,563	6,134	25,697	20,556	9,569	55,822
Western redcedar	17,381	3,846	21,227	33,225	22,460	76,912
Total softwoods	191,927	59,570	251,497	256,130	386,340	893,967
Aspen	—	—	—	546	902	1,448
Cottonwood	49	49	98	198	2,228	2,524
Total hardwoods	49	49	98	744	3,130	3,972
All species	191,976	59,619	251,595	256,874	389,470	897,939

Table 29—Net annual growth of growing stock on timberland outside National Forests by species and diameter class in northern Idaho, 1990

Species	Diameter class (inches at breast height)													All classes
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	
	Thousand cubic feet													
Douglas-fir	8,575	8,653	10,170	9,794	9,525	8,816	4,747	3,842	1,989	1,354	796	376	582	69,219
Ponderosa pine	2,238	484	2,524	1,925	1,139	2,250	2,501	1,379	728	742	694	231	382	17,217
Western white pine	638	538	–673	–309	736	229	–231	–48	149	94	–171	–1,189	–577	–814
Lodgepole pine	3,783	895	1,870	2,360	1,090	551	257	40	15	13	—	—	—	10,874
Whitebark pine	28	—	—	—	—	27	58	—	—	—	—	—	—	113
Limber pine	18	—	—	—	—	—	—	—	—	—	—	—	—	18
Western larch	2,014	2,116	2,407	2,147	1,876	1,274	744	288	164	93	203	39	96	13,461
Grand fir	15,179	9,088	7,653	9,730	7,152	4,603	2,915	2,622	1,558	1,009	789	457	751	63,506
Subalpine fir	2,974	943	384	622	–824	288	–253	–817	–126	51	20	2	—	3,264
Engelmann spruce	1,569	343	698	872	428	69	305	–254	67	161	123	109	–224	4,266
Western hemlock	4,730	2,591	1,901	2,790	2,186	1,261	456	273	416	–145	210	118	119	16,906
Western redcedar	3,937	3,310	3,526	3,021	2,976	2,301	1,713	1,182	1,029	621	279	434	593	24,922
Total softwoods	45,683	28,961	30,460	32,952	26,284	21,669	13,212	8,507	5,989	3,993	2,943	577	1,722	222,952
Aspen	639	720	268	157	75	22	—	42	17	—	—	—	—	1,940
Cottonwood	3,182	1,238	683	28	–35	129	72	74	100	110	66	52	69	5,768
Total hardwoods	3,821	1,958	951	185	40	151	72	116	117	110	66	52	69	7,708
All species	49,504	30,919	31,411	33,137	26,324	21,820	13,284	8,623	6,106	4,103	3,009	629	1,791	230,660

Table 30—Net annual growth of sawtimber (International ¼-inch rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1990

Species	Diameter class (inches at breast height)											All classes
	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	
	Thousand board feet											
Douglas-fir	99,662	56,634	54,418	50,511	28,070	22,707	12,298	8,194	4,798	2,164	3,412	342,868
Ponderosa pine	22,929	14,703	11,765	17,700	19,605	11,067	5,860	5,882	5,883	2,152	3,292	120,838
Western white pine	–2,351	–1,036	4,666	1,736	–1,189	–119	898	600	–1,023	–7,055	–3,689	–8,562
Lodgepole pine	25,785	12,287	5,884	2,807	1,266	204	77	69	—	—	—	48,379
Whitebark pine	—	—	—	133	284	—	—	—	—	—	—	417
Limber pine	—	—	—	—	—	—	—	—	—	—	—	—
Western larch	19,323	12,616	11,556	7,964	4,675	1,872	1,045	486	1,087	78	431	61,133
Grand fir	89,425	55,906	40,441	26,313	15,673	13,953	7,800	4,624	3,383	1,878	3,142	262,538
Subalpine fir	7,862	3,408	–3,818	1,445	–1,198	–3,735	–607	302	103	9	—	3,771
Engelmann spruce	13,700	5,103	2,481	429	1,770	–1,441	531	1,357	836	756	–1,368	24,154
Western hemlock	11,937	17,953	13,930	8,030	2,848	1,829	2,594	–820	1,292	722	712	61,027
Western redcedar	26,552	13,617	13,438	10,432	8,036	5,518	4,823	2,918	1,314	2,044	2,819	91,511
Total softwoods	314,824	191,191	154,761	127,500	79,840	51,855	35,319	23,612	17,673	2,748	8,751	1,008,074
Aspen	XXXXX[1]	824	372	102	—	189	74	—	—	—	—	1,561
Cottonwood	XXXXX	41	–243	520	285	314	446	507	310	245	330	2,755
Total hardwoods	XXXXX	865	129	622	285	503	520	507	310	245	330	4,316
All species	314,824	192,056	154,890	128,122	80,125	52,358	35,839	24,119	17,983	2,993	9,081	1,012,390

[1] Hardwoods are not considered sawtimber until they are 11 inches d.b.h.

Table 31—Net annual growth of sawtimber (Scribner rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1990

Species	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	All classes
	Diameter class (inches at breast height)											
	Thousand board feet											
Douglas-fir	83,584	51,870	49,150	45,519	25,372	20,529	10,945	7,292	4,271	1,926	3,036	303,494
Ponderosa pine	15,021	12,606	10,896	15,607	17,230	9,750	5,179	5,166	5,198	1,914	2,930	101,497
Western white pine	–1,861	–570	4,398	1,699	–1,033	–84	853	546	–910	–6,279	–3,283	–6,524
Lodgepole pine	23,070	11,600	5,523	2,551	1,138	181	68	62	—	—	—	44,193
Whitebark pine	—	—	—	120	253	—	—	—	—	—	—	373
Limber pine	—	—	—	—	—	—	—	—	—	—	—	—
Western larch	16,600	11,795	10,781	7,352	4,315	1,728	965	436	982	70	383	55,407
Grand fir	78,697	51,383	37,000	24,263	14,414	12,580	6,991	4,121	3,011	1,672	2,797	236,929
Subalpine fir	7,170	3,259	–3,086	1,314	–1,046	–3,267	–540	272	92	8	—	4,176
Engelmann spruce	12,201	4,580	2,227	443	1,589	–1,232	472	1,208	744	673	–1,217	21,688
Western hemlock	10,317	16,262	13,375	7,511	2,535	1,628	2,457	–687	1,150	642	633	55,823
Western redcedar	23,119	11,059	10,602	8,220	6,436	4,815	4,389	2,655	1,196	1,860	2,560	76,911
Total softwoods	267,918	173,844	140,866	114,599	71,203	46,628	31,779	21,071	15,734	2,486	7,839	893,967
Aspen	XXXXX[1]	768	351	95	—	168	66	—	—	—	—	1,448
Cottonwood	XXXXX	54	–146	448	251	280	398	451	276	218	294	2,524
Total hardwoods	XXXXX	822	205	543	251	448	464	451	276	218	294	3,972
All species	267,918	174,666	141,071	115,142	71,454	47,076	32,243	21,522	16,010	2,704	8,133	897,939

[1] Hardwoods are not considered sawtimber until they are 11 inches d.b.h.

Mortality

Table 32—Annual mortality of growing stock on timberland outside National Forests by species and owner group in northern Idaho, 1990

	Owner group					
	Other public					
Species	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Thousand cubic feet					
Douglas-fir	1,575	526	2,101	3,319	4,030	9,450
Ponderosa pine	857	762	1,619	245	2,904	4,768
Western white pine	2,614	788	3,402	2,367	1,022	6,791
Lodgepole pine	793	349	1,142	1,266	2,764	5,172
Whitebark pine	—	—	—	—	—	—
Limber pine	—	—	—	—	—	—
Western larch	—	—	—	984	653	1,637
Grand fir	2,736	755	3,491	3,763	5,214	12,468
Subalpine fir	1,906	568	2,474	957	145	3,576
Engelmann spruce	411	412	823	925	—	1,748
Western hemlock	—	—	—	702	686	1,388
Western redcedar	—	—	—	—	68	68
Total softwoods	10,892	4,160	15,052	14,528	17,486	47,066
Aspen	—	—	—	—	—	—
Cottonwood	—	—	—	—	486	486
Total hardwoods	—	—	—	—	486	486
All species	10,892	4,160	15,052	14,528	17,972	47,552

Table 33—Annual mortality of sawtimber (International ¼-inch rule) on timberland outside National Forests by species and owner group in northern Idaho, 1990

	Owner group					
	Other public					
Species	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Thousand board feet					
Douglas-fir	6,769	2,618	9,387	11,981	16,083	37,451
Ponderosa pine	4,347	3,866	8,213	1,718	13,540	23,471
Western white pine	14,506	4,224	18,730	9,916	2,559	31,205
Lodgepole pine	1,621	311	1,932	557	5,895	8,384
Whitebark pine	—	—	—	—	—	—
Limber pine	—	—	—	—	—	—
Western larch	—	—	—	2,569	669	3,238
Grand fir	9,145	2,230	11,375	13,228	17,404	42,007
Subalpine fir	8,998	2,640	11,638	4,479	—	16,117
Engelmann spruce	2,513	2,514	5,027	5,437	—	10,464
Western hemlock	—	—	—	2,601	2,903	5,504
Western redcedar	—	—	—	—	—	—
Total softwoods	47,899	18,403	66,302	52,486	59,053	177,841
Aspen	—	—	—	—	—	—
Cottonwood	—	—	—	—	1,846	1,846
Total hardwoods	—	—	—	—	1,846	1,846
All species	47,899	18,403	66,302	52,486	60,899	179,687

Table 34—Annual mortality of sawtimber (Scribner rule) on timberland outside National Forests by species and owner group in northern Idaho, 1990

Species	Owner group					
	Other public					
	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Thousand board feet					
Douglas-fir	5,817	2,262	8,079	10,131	13,503	31,713
Ponderosa pine	3,574	3,179	6,753	1,468	11,038	19,259
Western white pine	12,771	3,688	16,459	8,579	2,169	27,207
Lodgepole pine	1,305	252	1,557	496	5,106	7,159
Whitebark pine	—	—	—	—	—	—
Limber pine	—	—	—	—	—	—
Western larch	—	—	—	2,204	469	2,673
Grand fir	7,954	1,961	9,915	11,247	14,723	35,885
Subalpine fir	7,785	2,302	10,087	3,652	—	13,739
Engelmann spruce	2,227	2,227	4,454	4,777	—	9,231
Western hemlock	—	—	—	2,315	2,583	4,898
Western redcedar	—	—	—	—	—	—
Total softwoods	41,433	15,871	57,304	44,869	49,591	151,764
Aspen	—	—	—	—	—	—
Cottonwood	—	—	—	—	1,108	1,108
Total hardwoods	—	—	—	—	1,108	1,108
All species	41,433	15,871	57,304	44,869	50,699	152,872

Table 35—Annual mortality of growing stock on timberland outside National Forests by species and diameter class in northern Idaho, 1990

Species	Diameter class (inches at breast height)												All classes
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	
	Thousand cubic feet													
Douglas-fir	1,157	469	772	2,345	781	552	1,006	952	990	291	135	—	—	9,450
Ponderosa pine	290	531	290	510	1,746	306	228	344	211	—	—	—	312	4,768
Western white pine	509	275	882	1,095	720	663	386	266	—	—	229	1,189	577	6,791
Lodgepole pine	1,326	2,101	435	610	700	—	—	—	—	—	—	—	—	5,172
Whitebark pine	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Limber pine	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Western larch	608	355	227	112	160	—	—	—	—	—	—	175	—	1,637
Grand fir	584	2,150	2,429	1,523	1,118	2,170	1,218	530	144	—	—	—	601	12,467
Subalpine fir	—	145	360	291	1,335	—	340	919	186	—	—	—	—	3,576
Engelmann spruce	—	—	—	—	—	237	—	622	208	275	—	—	407	1,749
Western hemlock	55	406	—	—	—	—	—	493	—	434	—	—	—	1,388
Western redcedar	68	—	—	—	—	—	—	—	—	—	—	—	—	68
Total softwoods	4,597	6,432	5,395	6,486	6,560	3,928	3,178	4,126	1,739	1,000	364	1,364	1,897	47,066
Aspen	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cottonwood	—	—	—	250	236	—	—	—	—	—	—	—	—	486
Total hardwoods	—	—	—	250	236	—	—	—	—	—	—	—	—	486
All species	4,597	6,432	5,395	6,736	6,796	3,928	3,178	4,126	1,739	1,000	364	1,364	1,897	47,552

Table 36—Annual mortality of sawtimber (International ¼-inch rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1990

	Diameter class (inches at breast height)											
Species	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	All classes
	Thousand board feet											
Douglas-fir	2,450	10,596	3,716	2,854	5,152	5,036	5,249	1,636	761	—	—	37,450
Ponderosa pine	869	2,549	10,228	1,906	1,544	2,418	1,498	—	—	—	2,458	23,470
Western white pine	3,243	5,310	3,533	3,405	2,159	1,429	—	—	1,383	7,054	3,689	31,205
Lodgepole pine	1,267	3,445	3,673	—	—	—	—	—	—	—	—	8,385
Whitebark pine	—	—	—	—	—	—	—	—	—	—	—	—
Limber pine	—	—	—	—	—	—	—	—	—	—	—	—
Western larch	693	669	948	—	—	—	—	—	—	928	—	3,238
Grand fir	8,177	6,930	5,325	10,332	6,066	2,423	727	—	—	—	2,028	42,008
Subalpine fir	1,512	1,351	6,430	—	1,626	4,301	897	—	—	—	—	16,117
Engelmann spruce	—	—	—	1,341	—	3,589	1,228	1,686	—	—	2,620	10,464
Western hemlock	—	—	—	—	—	2,903	—	2,601	—	—	—	5,504
Western redcedar	—	—	—	—	—	—	—	—	—	—	—	—
Total softwoods	18,211	30,850	33,853	19,838	16,547	22,099	9,599	5,923	2,144	7,982	10,795	177,841
Aspen	XXXXX[1]	—	—	—	—	—	—	—	—	—	—	—
Cottonwood	XXXXX	958	888	—	—	—	—	—	—	—	—	1,846
Total hardwoods	XXXXX	958	888	—	—	—	—	—	—	—	—	1,846
All species	18,211	31,808	34,741	19,838	16,547	22,099	9,599	5,923	2,144	7,982	10,795	179,687

[1] Hardwoods are not considered sawtimber until they are 11 inches d.b.h.

Table 37—Annual mortality of sawtimber (Scribner rule) on timberland outside National Forests by species and diameter class in northern Idaho, 1990

	Diameter class (inches at breast height)											
Species	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+	All classes
	Thousand board feet											
Douglas-fir	1,953	8,524	3,098	2,443	4,486	4,405	4,671	1,456	678	—	—	31,714
Ponderosa pine	522	1,969	8,345	1,580	1,311	2,072	1,273	—	—	—	2,187	19,259
Western white pine	2,669	4,473	3,089	2,996	1,916	1,272	—	—	1,231	6,278	3,283	27,207
Lodgepole pine	1,128	2,808	3,222	—	—	—	—	—	—	—	—	7,158
Whitebark pine	—	—	—	—	—	—	—	—	—	—	—	—
Limber pine	—	—	—	—	—	—	—	—	—	—	—	—
Western larch	616	469	763	—	—	—	—	—	—	826	—	2,674
Grand fir	6,615	5,712	4,586	9,034	5,331	2,156	645	—	—	—	1,805	35,884
Subalpine fir	1,196	1,068	5,460	—	1,435	3,781	799	—	—	—	—	13,739
Engelmann spruce	—	—	—	1,146	—	3,160	1,093	1,500	—	—	2,332	9,231
Western hemlock	—	—	—	—	—	2,583	—	2,315	—	—	—	4,898
Western redcedar	—	—	—	—	—	—	—	—	—	—	—	—
Total softwoods	14,699	25,023	28,563	17,199	14,479	19,429	8,481	5,271	1,909	7,104	9,607	151,764
Aspen	XXXXX[1]	—	—	—	—	—	—	—	—	—	—	—
Cottonwood	XXXXX	575	533	—	—	—	—	—	—	—	—	1,108
Total hardwoods	XXXXX	575	533	—	—	—	—	—	—	—	—	1,108
All species	14,699	25,598	29,096	17,199	14,479	19,429	8,481	5,271	1,909	7,104	9,607	152,872

[1] Hardwoods are not considered sawtimber until they are 11 inches d.b.h.

Table 38—Annual mortality of growing stock on timberland outside National Forests by species and cause of death in northern Idaho, 1990

Species	Cause of death								Total
	Insects	Disease	Fire	Animal	Weather	Suppression	Unknown[1]	Logging	
	Thousand cubic feet								
Douglas-fir	357	5,388	521	82	1,083	90	1,808	120	9,449
Ponderosa pine	3,531	691	—	—	341	87	119	—	4,769
Western white pine	958	4,950	—	—	584	—	299	—	6,791
Lodgepole pine	2,180	1,016	—	—	615	716	337	308	5,172
Whitebark pine	—	—	—	—	—	—	—	—	—
Limber pine	—	—	—	—	—	—	—	—	—
Western larch	132	371	—	—	277	161	696	—	1,637
Grand fir	2,771	8,005	—	—	260	—	1,381	50	12,467
Subalpine fir	329	2,915	—	—	250	—	82	—	3,576
Engelmann spruce	206	483	—	—	823	—	236	—	1,748
Western hemlock	—	406	—	—	434	—	549	—	1,389
Western redcedar	—	—	—	—	—	—	68	—	68
Total softwoods	10,464	24,225	521	82	4,667	1,054	5,575	478	47,066
Aspen	—	—	—	—	—	—	—	—	—
Cottonwood	—	486	—	—	—	—	—	—	486
Total hardwoods	—	486	—	—	—	—	—	—	486
All species	10,464	24,711	521	82	4,667	1,054	5,575	478	47,552

[1] Because many destructive agents often attack trees in concert or in succession, it is often difficult to identify the actual causal agent. When the primary cause of death cannot be precisely determined, it is listed as unknown.

Table 39—Annual mortality of sawtimber (International ¼-inch rule) on timberland outside National Forests by species and cause of death in northern Idaho, 1990

Species	Cause of death								Total
	Insects	Disease	Fire	Animal	Weather	Suppression	Unknown	Logging	
	Thousand board feet								
Douglas-fir	101	24,883	2,078	373	5,415	—	4,601	—	37,451
Ponderosa pine	18,134	4,096	—	—	1,240	—	—	—	23,470
Western white pine	4,852	23,906	—	—	1,435	—	1,011	—	31,204
Lodgepole pine	5,054	1,253	—	—	1,513	—	565	—	8,385
Whitebark pine	—	—	—	—	—	—	—	—	—
Limber pine	—	—	—	—	—	—	—	—	—
Western larch	—	899	—	—	949	—	1,390	—	3,238
Grand fir	11,995	27,425	—	—	—	—	2,587	—	42,007
Subalpine fir	1,598	13,110	—	—	1,195	—	215	—	16,118
Engelmann spruce	1,182	2,914	—	—	5,027	—	1,341	—	10,464
Western hemlock	—	—	—	—	2,601	—	2,903	—	5,504
Western redcedar	—	—	—	—	—	—	—	—	—
Total softwoods	42,916	98,486	2,078	373	19,375	—	14,613	—	177,841
Aspen	—	—	—	—	—	—	—	—	—
Cottonwood	—	1,846	—	—	—	—	—	—	1,846
Total hardwoods	—	1,846	—	—	—	—	—	—	1,846
All species	42,916	100,332	2,078	373	19,375	—	14,613	—	179,687

Table 40—Annual mortality of sawtimber (Scribner rule) on timberland outside National Forests by species and cause of death in northern Idaho, 1990

Species	Cause of death								Total
	Insects	Disease	Fire	Animal	Weather	Suppression	Unknown	Logging	
	Thousand board feet								
Douglas-fir	60	21,163	1,744	298	4,680	—	3,768	—	31,713
Ponderosa pine	14,858	3,356	—	—	1,045	—	—	—	19,259
Western white pine	4,234	20,817	—	—	1,261	—	895	—	27,207
Lodgepole pine	4,375	1,081	—	—	1,252	—	450	—	7,158
Whitebark pine	—	—	—	—	—	—	—	—	—
Limber pine	—	—	—	—	—	—	—	—	—
Western larch	—	674	—	—	763	—	1,237	—	2,674
Grand fir	10,317	23,374	—	—	—	—	2,193	—	35,884
Subalpine fir	1,372	11,146	—	—	1,031	—	191	—	13,740
Engelmann spruce	1,038	2,593	—	—	4,454	—	1,146	—	9,231
Western hemlock	—	—	—	—	2,315	—	2,583	—	4,898
Western redcedar	—	—	—	—	—	—	—	—	—
Total softwoods	36,254	84,204	1,744	298	16,801	—	12,463	—	151,764
Aspen	—	—	—	—	—	—	—	—	—
Cottonwood	—	1,108	—	—	—	—	—	—	1,108
Total hardwoods	—	1,108	—	—	—	—	—	—	1,108
All species	36,254	85,312	1,744	298	16,801	—	12,463	—	152,872

COUNTY TABLES

Table 41—Area of timberland outside National Forests by county in northern Idaho, 1991

County	Area
	Acres
Benewah	338,611
Bonner	497,929
Boundary	219,025
Clearwater	669,350
Idaho	423,223
Kootenai	343,056
Latah	277,736
Lewis	96,978
Nez Perce	144,692
Shoshone	446,950
Total	3,457,550

Table 42—Net volume of growing stock and sawtimber on timberland outside National Forests by county in northern Idaho, 1991

County	Growing stock	Sawtimber	
	Thousand cubic feet	*Thousand board feet International ¼-inch rule*	*Thousand board feet Scribner rule*
Benewah	811,210	3,309,441	2,779,637
Bonner	1,034,978	3,737,895	3,114,140
Boundary	442,637	1,742,868	1,456,333
Clearwater	1,278,786	5,097,068	4,341,404
Idaho	888,533	4,117,649	3,535,031
Kootenai	740,562	3,178,865	2,668,374
Latah	671,568	2,762,294	2,316,231
Lewis	129,373	532,981	445,746
Nez Perce	210,392	975,949	828,863
Shoshone	1,383,083	5,459,239	4,661,909
Total	7,591,122	30,914,249	26,147,668

Table 43—Net annual growth of growing stock and sawtimber on timberland outside National Forests by county in northern Idaho, 1990

County	Growing stock	Sawtimber	
	Thousand cubic feet	*Thousand board feet International ¼-inch rule*	*Thousand board feet Scribner rule*
Benewah	25,808	121,770	109,551
Bonner	37,144	136,143	121,618
Boundary	8,984	45,806	40,291
Clearwater	42,862	174,139	154,441
Idaho	21,441	101,471	90,281
Kootenai	27,119	149,583	128,810
Latah	22,529	101,302	89,475
Lewis	4,735	16,291	14,466
Nez Perce	7,018	29,521	26,542
Shoshone	33,020	136,364	122,464
Total	230,660	1,012,390	897,939

Table 44—Annual mortality of growing stock and sawtimber on timberland outside National Forests by county in northern Idaho, 1990

County	Growing stock	Sawtimber	
	Thousand cubic feet	*Thousand board feet International ¼-inch rule*	*Thousand board feet Scribner rule*
Benewah	3,874	12,599	10,383
Bonner	5,368	17,666	14,430
Boundary	3,574	9,918	8,437
Clearwater	7,455	29,872	26,178
Idaho	5,374	18,635	15,674
Kootenai	2,773	8,974	7,531
Latah	4,210	15,228	12,866
Lewis	1,298	5,600	4,626
Nez Perce	2,038	10,095	8,275
Shoshone	11,588	51,100	44,472
Total	47,552	179,687	152,872

MISCELLANEOUS TABLES

Table 45—Area of timberland outside National Forests by burn history and owner group in northern Idaho, 1991

	Owner group					
	Other public					
Burn history	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Acres					
None	332,054	97,067	429,121	400,163	628,349	1,457,633
Burned in the past year	—	—	—	—	—	—
Burned 1 to 3 years ago	13,611	1,069	14,680	12,200	34,073	60,953
Burned 3 to 10 years ago	56,320	19,361	75,681	120,355	103,686	299,722
Burned more than 10 years ago	292,653	89,637	382,290	533,340	723,612	1,639,242
Total	694,638	207,134	901,772	1,066,058	1,489,720	3,457,550

Table 46—Area of timberland outside National Forests by cutting history and owner group in northern Idaho, 1991

	Owner group					
	Other public					
Cutting history	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Acres					
None	268,715	100,549	369,264	210,548	289,787	869,599
Cut in the past year	18,316	7,396	25,712	13,743	85,303	124,758
Cut 1 to 3 years ago	35,556	4,298	39,854	53,440	115,607	208,901
Cut 3 to 10 years ago	94,024	20,548	114,572	239,573	329,818	683,963
Cut more than 10 years ago	278,027	74,343	352,370	548,754	669,205	1,570,329
Total	694,638	207,134	901,772	1,066,058	1,489,720	3,457,550

Table 47—Area of timberland outside National Forests by distance to road and owner group in northern Idaho, 1991

	Owner group					
	Other public					
Distance to road	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Acres					
Less than ½ mile	298,263	96,121	394,384	640,013	1,039,176	2,073,573
½ to 1 mile	127,257	33,885	161,142	217,205	250,915	629,262
1 to 3 miles	171,651	45,279	216,930	162,167	132,839	511,936
3 to 5 miles	76,345	26,337	102,682	46,447	53,676	202,805
More than 5 miles	21,122	5,512	26,634	226	13,114	39,974
Total	694,638	207,134	901,772	1,066,058	1,489,720	3,457,550

Table 48—Net volume of growing stock on timberland outside National Forests by distance to road and owner group in northern Idaho, 1991

	Owner group					
	Other public					
Distance to road	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Thousand cubic feet					
Less than ½ mile	747,951	245,460	993,411	1,234,624	2,018,367	4,246,402
½ to 1 mile	376,711	115,294	492,005	462,906	418,769	1,373,680
1 to 3 miles	430,910	146,525	577,435	478,603	230,995	1,287,033
3 to 5 miles	251,933	86,933	338,866	136,865	84,936	560,667
More than 5 miles	77,884	28,327	106,211	96	17,033	123,340
Total	1,885,389	622,539	2,507,928	2,313,094	2,770,100	7,591,122

MARKETING ZONE TABLES

Table 49—Area of timberland outside National Forests by marketing zone and owner group in northern Idaho, 1991

	Owner group					
	Other public					
Marketing zone	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Acres					
Panhandle	374,612	105,251	479,863	573,355	792,353	1,845,571
Northern	320,026	101,883	421,909	492,703	697,367	1,611,979
Total	694,638	207,134	901,772	1,066,058	1,489,720	3,457,550

Table 50—Net volume of growing stock and sawtimber on timberland outside National Forests by marketing zone and owner group in northern Idaho, 1991

	Owner group					
	Other public					
Marketing zone	State	Other	Total other public	Forest industry	Nonindustrial private	Total
			Growing stock			
			Thousand cubic feet			
Panhandle	984,611	318,463	1,303,074	1,350,636	1,758,759	4,412,469
Northern	900,778	304,076	1,204,854	962,458	1,011,341	3,178,653
Total	1,885,389	622,539	2,507,928	2,313,094	2,770,100	7,591,122
			Sawtimber			
			Thousand board feet, International ¼-inch rule			
Panhandle	4,158,733	1,397,716	5,556,449	5,297,869	6,573,990	17,428,308
Northern	3,735,987	1,355,300	5,091,287	3,986,193	4,408,461	13,485,941
Total	7,894,720	2,753,016	10,647,736	9,284,062	10,982,451	30,914,249
			Sawtimber			
			Thousand board feet, Scribner rule			
Panhandle	3,532,964	1,195,575	4,728,539	4,482,889	5,468,965	14,680,393
Northern	3,217,026	1,171,075	4,388,101	3,359,338	3,719,836	11,467,275
Total	6,749,990	2,366,650	9,116,640	7,842,227	9,188,801	26,147,668

Table 51—Net annual growth of growing stock and sawtimber on timberland outside National Forests by marketing zone and owner group in northern Idaho, 1990

	Owner group					
	Other public					
Marketing zone	State	Other	Total other public	Forest industry	Nonindustrial private	Total
			Growing stock			
			Thousand cubic feet			
Panhandle	23,260	7,097	30,357	38,444	63,275	132,076
Northern	23,915	6,186	30,101	28,954	39,529	98,584
Total	47,175	13,283	60,458	67,398	102,804	230,660
			Sawtimber			
			Thousand board feet, International ¼-inch rule			
Panhandle	110,178	34,524	144,702	166,413	278,550	589,665
Northern	105,389	32,589	137,978	120,597	164,150	422,725
Total	215,567	67,113	282,680	287,010	442,700	1,012,390
			Sawtimber			
			Thousand board feet, Scribner rule			
Panhandle	98,170	30,647	128,817	149,617	244,300	522,734
Northern	93,806	28,972	122,778	107,257	145,170	375,205
Total	191,976	59,619	251,595	256,874	389,470	897,939

Table 52—Annual mortality of growing stock and sawtimber on timberland outside National Forests by marketing zone and owner group in northern Idaho, 1990

Marketing zone	Owner group					
	Other public					
	State	Other	Total other public	Forest industry	Nonindustrial private	Total
	Growing stock					
	Thousand cubic feet					
Panhandle	5,464	2,258	7,722	8,312	11,143	27,177
Northern	5,428	1,902	7,330	6,216	6,829	20,375
Total	10,892	4,160	15,052	14,528	17,972	47,552
	Sawtimber					
	Thousand board feet, International ¼-inch rule					
Panhandle	23,532	10,875	34,407	30,612	35,237	100,256
Northern	24,367	7,528	31,895	21,874	25,662	79,431
Total	47,899	18,403	66,302	52,486	60,899	179,687
	Sawtimber					
	Thousand board feet, Scribner rule					
Panhandle	20,385	9,489	29,874	25,937	29,443	85,254
Northern	21,047	6,383	27,430	18,932	21,256	67,618
Total	41,432	15,872	57,304	44,869	50,699	152,872

☆U.S. GOVERNMENT PRINTING OFFICE: 1993-776-616

NATIONAL AGRICULTURAL LIBRARY
1022338953

Wilson, Michael J.; Van Hooser, Dwane D. 1993. Forest statistics for land outside National Forests in northern Idaho, 1991. Resour. Bull. INT-80. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station. 58 p.

Presents land area, timberland area, timber volume, and components of change for the land outside National Forests in northern Idaho.

KEYWORDS: forest survey, timberland, inventory volume

Printed on recycled paper

NATIONAL AGRICULTURAL LIBRARY
1022338953

INTERMOUNTAIN RESEARCH STATION

The Intermountain Research Station provides scientific knowledge and technology to improve management, protection, and use of the forests and rangelands of the Intermountain West. Research is designed to meet the needs of National Forest managers, Federal and State agencies, industry, academic institutions, public and private organizations, and individuals. Results of research are made available through publications, symposia, workshops, training sessions, and personal contacts.

The Intermountain Research Station territory includes Montana, Idaho, Utah, Nevada, and western Wyoming. Eighty-five percent of the lands in the Station area, about 231 million acres, are classified as forest or rangeland. They include grasslands, deserts, shrublands, alpine areas, and forests. They provide fiber for forest industries, minerals and fossil fuels for energy and industrial development, water for domestic and industrial consumption, forage for livestock and wildlife, and recreation opportunities for millions of visitors.

Several Station units conduct research in additional western States, or have missions that are national or international in scope.

Station laboratories are located in:

Boise, Idaho

Bozeman, Montana (in cooperation with Montana State University)

Logan, Utah (in cooperation with Utah State University)

Missoula, Montana (in cooperation with the University of Montana)

Moscow, Idaho (in cooperation with the University of Idaho)

Ogden, Utah

Provo, Utah (in cooperation with Brigham Young University)

Reno, Nevada (in cooperation with the University of Nevada)

USDA policy prohibits discrimination because of race, color, national origin, sex, age, religion, or handicapping condition. Any person who believes he or she has been discriminated against in any USDA-related activity should immediately contact the Secretary of Agriculture, Washington, DC 20250.